PRIMEQUEST1000 Series
ServerView Mission Critical Option

Version 1.0

User Manual

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1 Product OverView

1.1 Monitoring mechanism on PRIMEQUEST

1.1.1 Basic Architecture

The MMB(Management Board) manages the hardware for the PRIMEQUEST 1000 series.

The MMB manages the mounted components (SB, power supply unit, fan, and LAN) and partitions in the PRIMEQUEST 1000 series server, and controls the system clock, management LAN, and PCI_Box.

It also sets various operations, such as video redirection, text console redirection, and Memory Mirror mode. These functions can be operated from the MMB Web-UI.

ServerView Agent (SVagent), ServerView RAID (SV RAID) and ServerView Mission Critical Option (SVmco) is software for monitoring hardware errors on partitions and managing configurations. It runs as an application on the operating system on each partition.

The MMB and ServerView Suite (SVS) can be operated from the MMB Web-UI and SVOM Web-UI on a general-purpose PC connected to the management LAN. No special console is needed.

All the operations and settings for system management are done through the MMB and SVOM Web-UI. All event monitoring in PRIMEQEUST system (include detected by MMB) can be monitored by SVOM Web-UI.

Note:

Following application software is changed to install on PRIMEQUEST1000 and PRIMEQUEST1000x2 (or later).

PRIMEQUEST1000: PRIMEQUEST Server Agent (PSA) *1

PRIMEQUEST1000x2 (or later): SVmco

When these software is intalled by SVIM, SVIM judge machine type and install only necessary software.

*1: PSA is system mangement software only PRIMEQUEST1000.

For detail, please refer PRIMEQUEST 1000 Series General Description Manual (C122-B022-03EN).

1.1.2 ServerView Suite

The role for each ServerView components in partition is as below.

- ServerView Operation Manager (SVOM)
  To display hardware configuration and abnormal event on each partition.
- ServerView Agents (SVagent)
  To collect hardware configuration and detect abnormal event in partition.
- ServerView RAID (SV RAID)
  To collect hardware configuration and detect abnormal event for disk device and SAS/RAID card.
- ServerView Mission Critical Option (SVmco)
  To notify event detected by SVagent to MMB and provide PRIMECLUSTER/PRIMESOFT linkage function (onlu Linux).

When detect hardware problem, the following actions are executed according to event.

- REMCS report: sent from MMB

(REMCS from SVOM can not be used in case of PRIMEQUEST.)

- Mail report: sent from MMB or SVOM.

- Trap report: sent from SVagent orSV RAID

Trap report from MMB is not supported from PQ1000x2 (or later).

- Syslog or EventLog output: Output log by SVagent or SV RAID.

1.2 ServerView Mission Critical Option (SVmco)

This section provide an overview of the SVmco function.

1.2.1 Function of SVmco

SVmco(ServerView Mission Critical Option) is a basic system application

for maitenance of PRIMEQUEST server system.

SVmco cooperation with ServerView Agents(SVagent) and Management Board (MMB), detect hardware problem on partition and send report.

SVmco's main functions are as follows:

- MMB(Management Board) linkage function

 SVmco communicate with MMB, and send hardware abnormal information to MMB.

 Then MMB send REMCS/Mail report.

- DISK maintenance operation

 SVmco provides the command for hot-plugging of disk drives.

- REMCS

 REMCS is Fujitsu's remote maintenance service.

 SVmco is positioned as a REMCS agent in the partition and collects hardware

 information in each partition.

- PRIMECLUSTER/PRIMESOFT integration

SVmco enables the linkage with PRIMECLUSTER/PRIMESOFT (clustering system).

1.2.2 Monitoring mechanism for hardware failure

SVagent monitors the log output to the system log (Linux and VMware) and event log (Windows), filters the events that have occurred according to the filter definition in SVagent, and SVagent and SVmco takes the required action (e.g., e-mail notification, REMCS notification, TRAP notification, log output) depending on the result.

To issue reports, the monitoring mechanism uses a dedicated LAN between SVmco and the MMB to link with the MMB. The reports are sent through the MMB.

Notes

For VMware, the hardware messages below, which are output to the Console OS system logs, are monitored. The relevant sections of 7.2. SVagent Messages are indicated in

parentheses. See these sections for details on messages.

- LAN ("7.2.4 LAN-related messages [Linux]")

- FC ("7.2.5 Fibre Channel messages [Linux]")

- SCSI ("7.2.7 SCSI messages [Linux]")

However, the driver messages of the SCSI common layer and those specific to VMware and different from those of Linux are not monitored. Also, vmkernel or vmkwarning is not monitored.

2 Installation Steps

2.1 Configuring SVmco (Linux: Red Hat Enterprise Linux)

This section describes confirmation of the required settings for SVmco operation after operating system installation, and corresponding features about the settings.

Confirmation of the required settings for SVmco operation, and corresponding features about the settings

Required/ As needed	Setting item	Automatic setting (*1)/ Manual setting (*2)	See
Required	Configuring the PSA-to-MMB communication LAN	Automatic setting	2.1.1 Configuring the PSA-to-MMB communication LAN
	Confirming management LAN settings	Manual setting	2.1.2 Confirming management LAN settings
	Confirming SELinux function settings	Automatic setting	2.1.3 Confirming SELinux function settings
	Checking the firewall function (opening ports)	Automatic setting	2.1.4 Checking the firewall function (opening ports)

Contents

Required/ As needed	Setting item	Automatic setting (*1)/ Manual setting (*2)	See
	Setting the management LAN IP address	Manual setting	2.1.5 Setting the management LAN IP address
As needed	Setting the destinations of traps from a partition	Manual setting	2.1.6 Setting the destinations of traps from a partition
	Configuring SNMP to use duplicate disks	Manual setting	2.1.7 Configuring SNMP to use duplicate disks
	Installing a SVmco update	Not applicable	2.1.8 Installing a SVmco update
	Uninstalling SVmco (*3)	Not applicable	2.1.9 Uninstalling SVmco

*1 Automatic setting: Values are automatically set during SVmco installation. You may need to change an automatically set value. See the section listed in the table.

*2 Manual setting: Values are not automatically set during SVmco installation. Make settings as described in the section referred to in the table.

*3 To operate the PRIMEQUEST 1000x2 series server, you need to first install SVmco. If you uninstall SVmco, the following restrictions apply.

- Even under an REMCS agreement, no software errors are reported.
- Hot maintenance of hard disks is disabled. The partition must be stopped for maintenance.
- PRIMECLUSTER linkage is disabled.

Remarks

- SVIM installs SVmco as it installs the operating system. For details on SVIM, see the *ServerView Suite ServerView Installation Manager*.
- For details on how to manually install SVmco, see 6. Manual SVmco Installation and Uninstallation.
- The following table lists settings for SVmco operation. The installer automatically adds or updates these settings during SVmco installation.

Settings automatically added/changed during SVmco installation

Target	Action	Remarks
snmpd.conf file	Add setting	
snmptrapd.conf file	Add setting	
snmptrapd start option	Change	
snmpd start option	Change	
Dedicated PSA-to-MMB communication LAN interface	Set IP address	Referring to 2.1.1 Configuring the PSA-to-MMB communication LAN, change settings as needed.

Target	Action	Remarks
iptables setting	Add setting	
SELinux configuration file (/etc/selinux/conf)	Change	If SELinux is disabled, do not change the settings.

Note

If you change the IP address of the dedicated PSA-to-MMB communication LAN on the MMB side or partition side, you need to then restart SVmco. Otherwise, SVmco would not be able to report any detected errors.

2.1.1 Configuring the PSA-to-MMB communication LAN

This section describes how to confirm the settings for the PSA-to-MMB communication LAN.

Communication between SVmco and the MMB requires an active NIC (network interface card) connected to the PSA-to-MMB communication LAN.

The PSA-to-MMB communication LAN is usually set with the following values during SVmco installation.

<IP address>

172.30.0.<*partition ID* + 2>/24

Example: Partition ID of 2

172.30.0.4/24

<Communication settings>

Auto Negotiation off

Speed 100 Mbps

Duplex full

In the following cases, change the IP address setting.

1. The automatically set IP address is the same as the IP address or subnet used for a production network or management network.

2. You are configuring a new partition using a duplicate disk from another partition.

3. The partition ID changes because a disk installed in a partition was moved to another partition.

Change the IP address setting by using the following procedure. If you are changing the setting because of the above reason 1, you need to change the IP addresses of all partitions in the cabinet and the IP address of the PSA-to-MMB communication LAN on the MMB side to IP addresses in the same subnet. Change the IP addresses on the MMB side from the MMB Web-UI.

Notes

- Do not change the automatically set communication values. Otherwise, PSA-MMB communication may be disabled, making SVmco functions unavailable.
- Change PSA-to-MMBLAN settings only after SVmco installation. If changed before SVmco installation, the settings are overwritten by the installation.
- If [Interface] of [MMB-PSA IP Address] in the [Network Configuration] - [Network Interface] window of the MMB Web-UI is Disable, you can use event notification function of SVmco. After changing it from Disable to Enable, the OS must be restarted.

■ Confirming the NIC of the PSA-to-MMB communication LAN

Confirm the interface name assigned to the NIC of the PSA-to-MMB communication LAN by using the following procedure.

● Operations

1. Execute the ifconfig command to confirm the interface name. This command lists the network interfaces recognized by the system.

Syntax

```
/sbin/ifconfig -a
```

Example of output

eth0, eth1, and lo shown on the left side are the interface names.

```
#  /sbin/ifconfig -a

eth0  Link encap:Ethernet HWaddr 00:D0:B7:53:89:C3

   inet addr:10.24.17.149 Bcast:10.24.17.255
Mask:255.255.255.0

   inet6 addr:  fe80::2d0:b7ff:fe53:89c3/64 Scope:Link

   UP BROADCAST RUNNING MULTICAST MTU:1500
Metric:1

   RX packets:1107704 errors:0  dropped:0 overruns:0 frame:0

   TX packets:2653820 errors:0  dropped:0 overruns:0 carrier:0

   collisions:0 txqueuelen:1000

   RX bytes:390009908 (371.9 MiB) TX bytes:809006934
(771.5 MiB)



eth1  Link encap:Ethernet HWaddr 00:0E:0C:21:83:97

   inet addr:192.168.0.162 Bcast:10.24.17.255
Mask:255.255.255.0

   inet6 addr:  fe80::20e:cff:fe21:8397/64 Scope:Link

   UP BROADCAST RUNNING MULTICAST  MTU:1500
Metric:1

   RX packets:1538726 errors:0  dropped:0 overruns:0 frame:0

   TX packets:356 errors:0 dropped:0  overruns:0 carrier:0
```

```
  collisions:0 txqueuelen:1000

  RX bytes:341051195 (325.2 MiB) TX bytes:22862 (22.3 KiB)

  Base address:0x5cc0  Memory:fbfe0000-fc000000


lo   Link encap:Local Loopback

  inet addr:127.0.0.1 Mask:255.0.0.0

  inet6 addr: ::1/128 Scope:Host

  UP LOOPBACK RUNNING MTU:16436  Metric:1

  RX packets:3865 errors:0 dropped:0  overruns:0 frame:0
```

2. Execute the ethtool command to find the NIC of the PSA-to-MMB communication LAN. Enter the command as shown below for each interface displayed in step 1. Then, check the results.

   The NIC of the PSA-to-MMB communication LAN is bus-info (SEG:BUS:DEV.FUNC number) 0000:00:19:00.0.

   Syntax

```
/sbin/ethtool -i <interface name>
```

   Example of output

   The execution results for eth0 in the example show the matching NIC for the PSA-to-MMB communication LAN.

```
# /sbin/ethtool -i eth0

  driver: e100

  version: 3.0.27-k2-NAPI

  firmware-version: N/A

  bus-info: 0000:00:19.0 (Corresponds to NIC of PSA-to-MMB
communication LAN)
```

■ Configuring the NIC of the PSA-to-MMB communication LAN

Configure the NIC of the PSA-to-MMB communication LAN by using the following procedure.

- Operations

1. Edit the ifcfg file of the corresponding interface in /etc/sysconfig/network-scripts.

   o NIC interface file name for the PSA-to-MMB communication LAN: ifcfg-<*NIC interface name*>

   Example: ifcfg-eth0

   Change the IP address by editing the ifcfg file of the interface.

   The following example shows a command for editing the ifcfg file of the NIC interface for the PSA-to-MMB communication LAN.

```
# vi  /etc/sysconfig/network-scripts/ifcfg-<NIC interface
```

```
name>



Change the following lines:

BROADCAST=<BROADCAST address of PSA-to-MMB
communication LAN>

IPADDR=<IP address of PSA-to-MMB communication
LAN>

NETMASK=<Subnet mask of PSA-to-MMB
communication LAN>
```

Notes

- Before changing the settings, confirm that the settings in the ifcfg file have the values that were automatically set during SVmco installation. If they do not have the automatically set values, SVmco may not have been installed. Always change the settings after SVmco installation.
- Do not change any line, including comment lines, except those with the items that must be changed (BROADCAST, IPADDR, and NETMASK). Otherwise, PSA-MMB communication may be disabled, making SVmco functions unavailable. Moreover, a SVmco update may overwrite the automatically set values.

2. Restart the network service to activate the network interface.

Syntax

```
/sbin/service  network restart
```

3. Set the PSA-to-MMB communication LAN IP addresses in the SVmco configuration file.

File storage location : /etc/fujitsu/SVmco/usr/tommbipsetup.conf

Setting values: Enter the IP addresses set in Step 1.

<Setting example>

```
[NETWORK]

TOMMBIP=172.30.0.4 <IP address set by Step1>
```

4. Restart SVmco to reflect the new NIC settings for the PSA-to-MMB communication LAN.

Syntax

```
/sbin/service   y30SVmco stop

/sbin/service   y30SVmco start
```

2.1.2 Confirming management LAN settings

Make network settings for the management LAN. If necessary, also configure any duplication with bonding or PRIMECLUSTER GLS, for example.

After completing the above network settings for the management LAN, perform the operations described in 2.1.4 Checking the firewall function (opening ports) and 2.1.5 Setting the management LAN IP address.

Note

In the PRIMEQUEST environment, it is necessary to specify OFF for the STP function of the switch that connects to the management LAN used for communication with the MMB.

2.1.3 Confirming SELinux function settings

Disable SELinux functions in the PRIMEQUEST 1000x2 series system. Usually, they are automatically disabled during SVmco installation.

If the partition with SVmco installed is running Red Hat Enterprise Linux, check whether the SELinux functions are enabled. If so, disable the SELinux functions.

Confirm that the following command displays "disabled." If the command displays anything other than "disabled," disable the functions by editing the config file (/etc/selinux/config).

- Confirming settings

```
#cd /etc/selinux/

#more config

.....

.....

SELINUX=disabled  ← Confirm this.
```

- Changing settings

```
# vi /etc/selinux/config

.....

.....

SELINUX=disabled  ← Edit this.
```

2.1.4 Checking the firewall function (opening ports)

Open any partition port that is required for operating SVmco but is not open because of firewall settings. Configure the management LAN interfaces and PSA-to-MMB communication LAN interfaces.

Settings related to the PSA-to-MMB communication LAN interface are required. Usually, the interfaces are automatically set during SVmco installation.(*1)

The settings related to the management LAN interface are required only for PRIMECLUSTER linkage. Open the ports by executing the supplied shell script for these settings. Alternatively, use the iptables command or another command to make the settings manually.(*2)

*1 The ports are configured only when SVmco is automatically installed from SVIM.

*2 Only a chain for the management LAN (MMLAN) is created by execution of the shell script for settings (setmlanfw.sh). Add the jump setting for the management LAN to INPUT or OUTPUT in iptables. For details, see Using the shell script (setmlanfw.sh) for these settings.

- Management LAN interfaces

Open the following ports for use with the management LAN interfaces.

Perform the operations described in 2.1.8 Setting the management LAN IP address before making the settings. Open the ports by executing the shell script (setmlanfw.sh) for these settings. Alternatively, use the iptables command or another command to make the settings manually.

Ports to open for the management LAN interfaces

Port	Port number	Description	Remarks
snmptrap port	udp/snmptrap or 162	Open the port only for linkage with a cluster (e.g., PCL linkage).	For the IP addresses, specify the physical IP addresses of the MMBs (MMB#0/MMB#1) belonging to all cluster nodes.
rmcp+ port	udp/7000 to 7100		

- Using the shell script (setmlanfw.sh) for these settings

1. Confirm the completion of the operations described in 2.1.8 Setting the management LAN IP address.

Prepare a configuration file.

The following is a sample configuration file.

```
/opt/fujitsu/SVmco/sh/sample_conf_setmlanfw.txt
```

Remarks

A SVmco update will overwrite the above sample file. Save a copy of the configuration file to retain the original values.

In the configuration file, write [PCL] only on the first line. Then, on separate lines, write the physical IP addresses of the MMBs (MMB#0/MMB#1) belonging to all the cluster nodes defined for PRIMECLUSTER, or write the network IP addresses including the physical IP addresses of the aforementioned MMBs.

Sample configuration file:

```
[PCL]
192.168.0.0/24
192.168.1.5
```

2. Execute the shell script.

In the first variable, specify the path to the configuration file prepared in step 2.

A confirmation message appears for the contents of the configuration file. Enter "Y".

Execution example: (The prepared configuration file "fwconf.txt" is assumed to be in the current directory.)

```
# /opt/fujitsu/SVmco/sh/setmlanfw.sh./fwconf.txt
Management LAN IP address:
192.168.0.1
```

```
Source IPs for PRIMECLUSTER Service:

192.168.0.0/24

192.168.1.5.



Press "Y" to confirm above settings, "N" to cancel all settings

> Y

The setting was completed
```

3. Execute iptables -L -n. Then, confirm that the "MMLAN" chain exists.

```
Execution example:
# iptables -L -n
Chain INPUT (policy DROP)
target  prot  opt source    destination
MMLAN   all  -- 0.0.0.0/0   0.0.0.0/0

Chain FORWARD (policy DROP)
target  prot  opt source    destination

Chain OUTPUT (policy DROP)
target  prot  opt source    destination
MMLAN  all   -- 0.0.0.0/0   0.0.0.0/0

Chain MMLAN (2 references)
target  prot  opt source     destination
ACCEPT  udp  -- 192.168.0.0/24 192.168.0.1  udp dpts:7000:7100
ACCEPT  udp  -- 192.168.0.1   192.168.0.0/24 udp
spts:7000:7100
ACCEPT  udp  -- 192.168.0.0/24 192.168.0.1  udp dpt:162
ACCEPT  udp  -- 192.168.0.1   192.168.0.0/24 udp spt:162
ACCEPT  udp  -- 192.168.1.5   192.168.0.1  udp dpts:7000:7100
ACCEPT  udp  -- 192.168.0.1   192.168.1.5   udp spts:7000:7100
ACCEPT  udp  -- 192.168.1.5   192.168.0.1  udp dpt:162
```

```
ACCEPT  udp  -- 192.168.0.1   192.168.1.5   udp spt:162
```

Note

After changing the IP address of the management LAN interface, delete the settings once, and set their values again. For details on how to delete the settings, see (7) Configuration deletion procedure in 3.7 Firewall Setting Command for the Management LAN Interface (setmlanfw.sh) .

Add the "MMLAN" setting chain to INPUT and OUTPUT chains. At this time, take care to prevent interruptions by an existing REJECT setting in an INPUT or OUTPUT chain or by a user definition chain.

```
Example: REJECT setting in INPUT and FORWARD
# iptables –L
Chain INPUT (policy ACCEPT)
target prot  opt  source       destination
ACCEPT    all   --   0.0.0.0/0      0.0.0.0/0  state
RELATED,ESTABLISHED
ACCEPT   icmp  --   0.0.0.0/0     0.0.0.0/0
ACCEPT   all   --   0.0.0.0/0     0.0.0.0/0
ACCEPT   tcp   --   0.0.0.0/0     0.0.0.0/0  state NEW tcp dpt:22
REJECT    all   --   0.0.0.0/0     0.0.0.0/0  reject-with icmp-host-
prohibited

Chain FORWARD (policy ACCEPT)
target prot  opt  source       destination
REJECT   all   --   0.0.0.0/0      0.0.0.0/0  reject-with icmp-host-
prohibited

Chain OUTPUT (policy ACCEPT)
target prot  opt   source       destination

Chain MMLAN (2 references)
target prot  opt  source       destination
ACCEPT  udp   --   192.168.0.0/24   192.168.0.1     udp
dpts:7000:7100
ACCEPT  udp   --   192.168.0.1      192.168.0.0/24  udp
spts:7000:7100
ACCEPT  udp   --  192.168.0.0/24   192.168.0.1     udp dpt:162
```

```
ACCEPT  udp   --  192.168.0.1      192.168.0.0/24  udp spt:162
ACCEPT  udp   --   192.168.1.5      192.168.0.1     udp dpts:7000:7100
ACCEPT  udp   --   192.168.0.1      192.168.1.5     udp spts:7000:7100
ACCEPT  udp   --  192.168.1.5      192.168.0.1     udp dpt:162
ACCEPT  udp   --  192.168.0.1      192.168.1.5     udp spt:162
```

4. Add "MMLAN" to the fifth INPUT chain (before the REJECT setting) and to the OUTPUT chain. (For details on the iptables option, see the man manual.)

```
# /sbin/iptables –I INPUT 5 –j MMLAN

# /sbin/iptables –A OUTPUT –j MMLAN
```

5. Execute the iptables -L command, and confirm that the MMLAN chains added to the INPUT and OUTPUT chains are not interrupted by the previous REJECT, DROP, or other settings.

```
Example of settings:
# iptables –L
Chain INPUT (policy ACCEPT)
target  prot  opt  source        destination
ACCEPT   all   --   0.0.0.0/0        0.0.0.0/0  state
RELATED,ESTABLISHED
ACCEPT  icmp  --   0.0.0.0/0        0.0.0.0/0
ACCEPT  all   --   0.0.0.0/0        0.0.0.0/0
ACCEPT  tcp   --   0.0.0.0/0        0.0.0.0/0  state NEW tcp dpt:22
MMLAN   all   --   0.0.0.0/0        0.0.0.0/0
REJECT   all   --   0.0.0.0/0        0.0.0.0/0  reject-with icmp-host-
prohibited

Chain FORWARD (policy ACCEPT)
target  prot  opt  source       destination
REJECT   all   --   0.0.0.0/0        0.0.0.0/0  reject-with icmp-host-
prohibited

Chain OUTPUT (policy ACCEPT)
target  prot  opt  source        destination
MMLAN    all   --   0.0.0.0/0        0.0.0.0/0
```

```
Chain MMLAN (2 references)
target  prot  opt  source        destination
ACCEPT  udp  --  192.168.0.0/24  192.168.0.1  udp dpts:7000:7100
ACCEPT  udp  --  192.168.0.1    192.168.0.0/24 udp spts:7000:7100
ACCEPT  udp  -- 192.168.0.0/24  192.168.0.1  udp dpt:162
ACCEPT  udp  -- 192.168.0.1    192.168.0.0/24 udp spt:162
ACCEPT  udp  --  192.168.1.5    192.168.0.1  udp dpts:7000:7100
ACCEPT  udp  --  192.168.0.1    192.168.1.5   udp spts:7000:7100
ACCEPT  udp  -- 192.168.1.5    192.168.0.1  udp dpt:162
ACCEPT  udp  -- 192.168.0.1    192.168.1.5   udp spt:162
```

6. Save the firewall configuration.

```
# /sbin/service iptables save
```

2.1.5 Setting the management LAN IP address

Set the partition management LAN IP address in SVmco.

```
ps ax | grep eecd
```

If the process has not started, start ServerView Agent.

Syntax

```
/usr/sbin/srvmagt start
```

2. Edit the /etc/fujitsu/SVmco/usr/ipsetup.conf file.

Example of changing the management LAN IP address

```
# vi /etc/fujitsu/SVmco/usr/ipsetup.conf


Change the following line.
[NETWORK]


ManagementIP=<management LAN IP address>
```

Syntax

```
[NETWORK]
ManagementIP=192.168.0.1
```

3. Run the following command.

Syntax

```
/usr/sbin/eecdcp -c oc=E002 oe=000C \'$IPADDRESS\'
```

Example

```
/usr/sbin/eecdcp -c oc=E002 oe=000C \'192.168.1.2\'
```

4. Restart SVmco to reflect the new the management LAN IP address.

Syntax

```
/sbin/service   y30SVmco stop

/sbin/service   y30SVmco start
```

For details on how to specify any duplication of the management LAN with PRIMECLUSTER GLS, see the applicable PRIMECLUSTER manuals.

To use PRIMECLUSTER linkage, configure the firewall for the management LAN interfaces. After making those settings, follow the procedure in 2.1.4 Checking the firewall function (opening ports). Then, configure the management LAN interfaces.

2.1.6 Setting the destinations of traps from a partition

- This setting is necessary only when you need to send trap.
- Please execute this setting when Operation management software receive events by trap.

■ Editing snmpd.conf

```
# vi /etc/snmp/snmpd.conf


Add the following lines according to the SNMP version used.

* The lines of definitions can be in any order.

trapsink HOST [COMMUNITY [PORT]]   # SNMPv1 trap setting

trap2sink HOST [COMMUNITY [PORT]]   # SNMPv2 trap setting

trapsess SNMPCMD_ARGS HOST[:PORT]   # SNMPv3 trap setting
```

The following describes the settings in detail.

■ SNMPv1/SNMPv2 trap setting

```
trapsink HOST [COMMUNITY [PORT]]    # SNMPv1 trap setting

trap2sink HOST [COMMUNITY [PORT]]   # SNMPv2 trap setting
```

The setting defines the host receiving the trap (i.e., the trap destination).

- A Cold Start trap is sent to the defined host during snmpd startup. If the partition is set to send SNMP traps, a trap is sent from the partition following any authentication failure.

- You can specify multiple trap destinations by specifying multiple hosts on the trapsink and trap2sink lines.

As an alternative to specifying COMMUNITY, you can specify a character string on the trapcommunity line. The trapcommunity command defines a default community character string for sending traps. To use trapcommunity to set a community character string, specify the string before the trapsink and trap2sink lines.

```
trapcommunity STRING          # Community name setting
```

- As an alternative to specifying PORT, you can use the general-purpose SNMP trap port (162).

  The following example shows how to send traps with "public" as the community name. The traps are sent to the manager of port 162 with IP address 192.168.0.162.

```
trapsink  192.168.0.162 public 162   ##SNMPv1 trap setting

trap2sink 192.168.0.162 public 162   ##SNMPv2 trap setting
```

■ SNMPv3 trap setting

```
trapsess SNMPCMD_ARGS HOST[:PORT]# SNMPv3 trap setting
```

The setting defines the host receiving the trap (i.e., the trap destination). As an alternative to specifying PORT, you can use the general-purpose SNMP trap port (162).

The following options are the main options specified with SNMPCMD_ARGS.

-v version:

This option specifies the SNMP version. For SNMPv3, specify 3.

-e engineID:

This option specifies the oldEngineID value. The /var/net-snmp/snmpd.conf file at the trap source contains this value.

-u secName:

This is the account for SNMPv3. This setting must match that on the manager side.

-l secLevel:

This option specifies one of the values listed in following table according to the security level of SNMPv3 messages.

secLevel settings

Setting value	Authentication	Encryption
noAuthNoPriv	Not set	Not set
authNoPriv	Set	Not set
authPriv	Set	Set

-a authProtocol:

This is the protocol for SNMPv3 message authentication. Either MD5 or SHA is specified. To use SHA, install openssl and create a package with openssl. The option takes effect only if the security level in the -l option includes authentication. Otherwise, you can omit the option.

-A authPassword:

This is the authentication password (at least eight characters). This setting must match that on the manager side. The option takes effect only if the security level in the -l option includes authentication. Otherwise, you can omit the option.

-x privProtocol:

This is the protocol for SNMPv3 message encryption. Currently, the only supported privacy protocol is DES. The option takes effect only if the security level in the -l option includes encryption. Otherwise, you can omit the option.

-X privPassword:

This is the encryption password (at least eight characters). This setting must match that on the manager side. The option takes effect only if the security level in the -l option includes encryption. Otherwise, you can omit the option.

The following example shows how to send SNMPv3 traps with the "PRIMEQUEST" account to enable authentication and encryption. The traps are sent to the manager of port 162 with IP address 192.168.0.162.

```
#trapsess -v 3 -e  0x800007e58026577a9f421950a4 -u PRIMEQUEST -l \
authPriv -a MD5
 -A 00000000 -x  DES -X 11111111 192.168.0.162:162  \
## SNMPv3 trap setting
```

\: This indicates that there is no line feed.

After setting the trap destination, restart snmpd with the following command.

```
#/etc/rc.d/init.d/snmpd restart
```

- How to confirm a trap destination setting

To confirm a trap destination setting, use the standard net-snmp trap that was sent during the snmp restart. You can confirm the correct trap setting by checking whether the trap was received.

Remarks

The trap destination must be running both a trap receiving application and a trap manager to be able to receive standard net-snmp traps.

Restart snmpd with the following command on the trap source machine.

```
# /etc/rc.d/init.d/snmpd restart
```

After that operation, a Cold Start trap is posted to the trap receiving application at the trap destination. Cold Start is a standard net-snmp trap.

In the following example, the trap destination is a Linux machine. snmptrapd runs on the Linux machine that is the trap destination to receive traps. snmptrapd outputs the following message to the system log. Confirm that the Linux machine received the trap normally.

```
Aug 17 12:00:53 pq-server  snmptrapd[2600]: 2005-08-17 12:00:53 \
pq-server.
fujitsu.com  [192.168.0.162](via 192.168.0.162) TRAP, SNMP v1, \
community
public  NET-SNMP-MIB::netSnmpAgentOIDs.10 Cold Start Trap (0) \
Uptime: 0:00:00.17
```

\: This indicates that there is no line feed.

2.1.7 Configuring SNMP to use duplicate disks

This section describes the required settings for using duplicate disks.

Remarks

Make settings only as needed.

You can use duplicate disks from a partition in a single cabinet to configure a new partition. To do so, you need to manually change EngineID of SNMPv3 for internal SVmco communication.

Change EngineID by using the following procedure. Perform the procedure with root privileges.

■ Operations

1. Execute the ps command to check whether SVmco is active.

Syntax

```
ps ax | grep mco
```

Example of output

If the command displays the processes in /opt/fujitsu/SVmco/bin/ as follows, SVmco is running.

```
# ps ax | grep mco

4562 ?    S   0:00 /opt/fujitsu/SVmco/bin/pm -o 70 /etc/opt/\
SVmco/global/pmmco.conf
4563 ?    S   0:18 /opt/fujitsu/SVmco/bin/pcx -p /
4564 ?    S   0:06 /opt/fujitsu/SVmco/bin/pcxipmi -p /
4565 ?    S   0:00 /opt/fujitsu/SVmco/bin/mmbm -p /
4566 ?    S   0:01 /opt/fujitsu/SVmco/bin/mmbs -p /

21670 pts/5 S+   0:00 grep mco
```

\: This indicates that there is no line feed.

2. If SVmco startup is in progress, execute the service command to stop SVmco.

Syntax

```
/sbin/service y30SVmco stop
```

3. Execute the ps command to check whether snmpd is active.

Syntax

```
ps ax | grep snmpd
```

Example of output

If the command displays /usr/sbin/snmpd as follows, snmpd startup is in progress.

```
# ps ax | grep snmpd
32611 ?        S      0:04 /usr/sbin/snmpd -Lsd -Lf /dev/null -p \
var/run/snmpd -a
```

\: This indicates that there is no line feed.

4. If snmpd startup is in progress, execute the service command to stop snmpd.

Syntax

```
/sbin/service snmpd stop
```

5. Change the oldEngineID value defined in the /var/net-snmp/snmpd.conf file.

Change it to an appropriate hexadecimal value consisting of up to 34 digits. However, be sure to use a value that is unique in the partitions in the same cabinet.

Example of changing the oldEngineID value to 0x19760523

```
#vi /var/net-snmp/snmpd.conf

oldEngineID 0x19760523
```

6. Execute the service command to start snmpd.

Syntax

```
/sbin/service snmpd start
```

7. Move to the /opt/fujitsu/SVmco/sh/ directory to generate another SNMPv3 password for internal SVmco communication.

Syntax

```
cd /opt/fujitsu/SVmco/sh/
```

8. Execute snmpsetup.sh in this directory.

   When executed, snmpsetup.sh automatically generates an SNMPv3 password for internal SVmco communication.

   Syntax

```
./snmpsetup.sh install
```

9. Start SVmco.

   Syntax

```
/sbin/service y30SVmco start
```

2.1.8 Installing a SVmco update

This section describes how to install a SVmco update in Red Hat Enterprise Linux.

The description in this section assumes that the SVmco package file(SVmco-$VER-$REL.tar.gz) has already been uncompressed in a work directory (referred to as $WORK_DIR, in this document), and directory "SVmco" has already been made.

Perform these operations with root authority.

When update SVmco, it is necessary to stop and start ServerView Agents. If ServerView Agents is not stopped, some files can not be replaced.

1. Stop the ServerView Agents service

srvmagt stop

2. Stop the SVmco service

/sbin/service y30SVmco stop

3. Change the current directory to SVmco in $WORK_DIR:

cd $WORK_DIR/SVmco

4. Enter the following command to start installation:

./INSTALL.sh

5. Start the SVmco service

/sbin/service y30SVmco start

6. Start the ServerView Agents service

srvmagt start

Notes of SVmco update

- When updating SVmco on PRIMECLUSTER system, please stop PRIMECLUSTER

according to the PRIMECLUSTER Installation and Administration Guide.

- Because PRIMECLUSTER function stops during update or restart of SVmco

temporarily, either of two kinds of PRIMECLUSTER messages might be

output.

7210 An error was detected in MMB.

SA SA_mmbp.so to test host <nodename> failed

- The following message may be output when updating SVmco.

But, there is no significant effect for SVmco activities.

/sbin/ldconfig: <LIBNAME> is not a symbolic link

2.1.9 Uninstalling SVmco

This section describes how to uninstall SVmco in Red Hat Enterprise Linux.

Execute the following commands in the order shown to first stop SVmco services and then uninstall the SVmco package.

Syntax

```
/sbin/service y30SVmco stop

/bin/rpm -e SVmco
```

2.2 Configuring SVmco (Windows Server 2008)

This section describes confirmation of the required settings for SVmco operation after operating system installation, and corresponding features about the settings.

Confirmation of the required settings for SVmco operation, and corresponding features about the settings

Required/ As needed	Setting item	Automatic setting (*1)/ Manual setting (*2)	See
Required	Configuring the PSA-to-MMB communication LAN	Manual setting	2.2.1 Configuring the PSA-to-MMB communication LAN
	Confirming management LAN settings	Manual setting	2.2.2 Confirming management LAN settings
	Installing the PSHED Plugin driver	Manual setting	2.2.3 Installing the PSHED Plugin driver
	Configuring the Windows Firewall	Manual setting	2.2.4 Configuring the Windows Firewall
	Setting the management LAN IP address	Manual setting	2.2.5 Setting the management LAN IP address

Required/ As needed	Setting item	Automatic setting (*1)/ Manual setting (*2)	See
As needed	Setting trap destinations	Manual setting	2.2.6 Setting trap destinations
	Setting Watchdog for monitoring after a STOP error (fatal system error)	Manual setting	2.2.7 Setting the Watchdog Timer for monitoring after a STOP error (fatal system error)
	Installing a SVmco update	Not applicable	2.2.8 Installing a SVmco update
	Uninstalling SVmco (*3)	Not applicable	2.2.9 Uninstalling SVmco

*1 Automatic setting: Values are automatically set during SVmco installation. You may need to change an automatically set value. See the section listed in the table.

*2 Manual setting: Values are not automatically set during SVmco installation. Make settings as described in the section referred to in the table.

*3 To operate the PRIMEQUEST 1000x2 series server, you need to first install SVmco. If you uninstall SVmco, the following restrictions apply.

- Even under an REMCS agreement, no software errors are reported.
- Hot maintenance of hard disks is disabled. The partition must be stopped for maintenance.

Remarks

- SVIM installs SVmco as it installs the operating system. For details on SVIM, see the *ServerView Installation Manager*.
- The installer installs some components for REMCS function on the operating system side during SVmco installation. Only Fujitsu certified service engineers make settings for REMCS.
- The following table lists settings for SVmco operation. The installer automatically adds or updates these settings during SVmco installation.

Note

Do not change the settings that were automatically added or changed during SVmco installation. Otherwise, SVmco may not operate normally.

Settings automatically added/changed during SVmco installation

Item	Description
1. Service settings	• ServerView Mission Critical Option • PRIMEQUEST PEM Command Service • PRIMEQUEST Environment Control Service
2. Environment variable settings	• PATH variable: Adds the value used by SVmco to the existing PATH variable. • SVmco_INSTALLPATH variable: Adds a new variable.

Item	Description
4. SNMP security settings	Security is set for SNMP Service because SVmco needs to accept SNMP packets from the MMB. The task varies depending on the parameter selected on the [Security] tab in the [SNMP Service Properties] window during SVmco installation. • With [Accept SNMP packets from any host] selected: SNMP security is not configured. • With [Accept SNMP packets from these hosts] selected: If neither the MMB IP address nor localhost is specified, localhost and SNMP security are configured.
5. WMI (Windows Management Instrumentation) settings	SVmco uses WMI to acquire information on PCI Express cards and SCSI devices. WMI is installed as standard with Windows. These settings include settings on the size of memory and number of internal handles used by WMI to collect this information. If the system has many LUNs for devices such as RAIDs, it may not have sufficient memory or internal handles. For this reason, the settings are changed to the following values: • Upper limit on memory used: 536,870,912 bytes (default of the operating system) • Upper limit on internal handles: 65,536

Remarks

- Execute the SNMP security setting command (setsnmpsec) in the following situations. For details on the command, see 3.5 SNMP Security Setting Command (setsnmpsec).

  - Having installed SVmco, you will be changing the SNMP Service security setting from [Accept SNMP packets from any host] to [Accept SNMP packets from these hosts].

  - You will be changing the MMB IP address.

- If you change the MMB IP address or the management LAN IP address on the partition, be sure to then restart SVmco. Otherwise, SVmco would not be able to report detected errors.

■ Notes on configuring Windows Server 2008

- From [Properties] in the Event Viewer, do not change the operation in [When maximum log size is reached] for the system log or application log to [Do not overwrite events (clear log manually)]. Otherwise, after the log reaches the maximum log size, no errors are output to the log, so SVagent will be unable to detect any errors.

- Do not stop the Windows Print Spooler service. The information collection function of the operating system uses WMI to collect configuration information. If the Print Spooler service is stopped, the function cannot collect the correct configuration information because WMI reports an error.

- If the set value of the following registry key is less than 20000 (20 seconds), the system may hang during operating system shutdown. Be sure to set a value equal to or greater than 20000 (20 seconds).

  HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Control
  WaitToKillServiceTimeout" (Type: REG_DWORD / Default;20000)

- You can use the above registry key to specify the wait time (ms) before the service is terminated in the shutdown sequence.

2.2.1 Configuring the PSA-to-MMB communication LAN

This section describes how to confirm the settings for the PSA-to-MMB communication LAN.

Communication between SVmco and the MMB requires that the partition have an active NIC connected to the PSA-to-MMB communication LAN.

For the setting of the PSA-to-MMB communication LAN, use the following procedure.

Note

In the following cases, you can not use event notification function of SVmco:

- [Interface] of [MMB-PSA IP Address] in the [Network Configuration] - [Network Interface] window of the MMB Web-UI is Disable
- The following operation (execution of the configuration command of PSA-to-MMB communication LAN) is not performed

1. Execute the PSA-to-MMB communication LAN setting command.

   [SVmco installation folder]\opt\fujitsu\SVmco\sh\setpsalan.bat

Note

If the operating system has not been restarted after SVmco installation, the PSA-to-MMB communication LAN setting command in step 1 will fail.

Execute the PSA-to-MMB communication LAN setting command after restarting the operating system.

2. Restart the operating system.

Performing the above procedure sets the following values.

<IP address>

172.30.0.<*partition ID* + 2>/24

Example: Partition ID of 2

172.30.0.4/24

<Communication settings>

Auto Negotiation off

Speed 100 Mbps

Duplex full

In the following cases, change the IP address setting.

- The automatically set IP address is the same as the IP address or subnet used for a production network or management network.

- You are configuring a new partition using a duplicate disk from another partition.

- The partition ID changes because a disk installed in a partition was moved to another partition.

- You are configuring a Windows cluster (MSCS) with partitions assigned the same number, with the cluster spanning cabinets. (The same IP addresses are assigned, so a configuration check detects an error indicating that a duplicate IP address was found.)

Change the IP address setting by using the following procedure. If you are changing the setting because of the above reason 1, you need to change the IP addresses of all partitions in the cabinet and the IP address of the PSA-to-MMB communication LAN on the MMB side to IP addresses in the same subnet. Change the IP addresses on the MMB side from the MMB Web-UI.

Notes

- Do not change the automatically set communication values. Otherwise, PSA-MMB communication may be disabled, making SVmco functions unavailable.

- Change PSA-to-MMB LAN settings only after SVmco installation. If changed before SVmco installation, the settings are overwritten by the installation.

■ Configuring the network adapter for the PSA-to-MMB communication LAN

Configure the network adapter by using the following procedure.

- Operations

1. Select [Control Panel] - [Network Connections].

   >> A window displays a list of networks.

2. Select [SVMCONIF] from the displayed list. Then, select [Properties] from the right-click menu.

   Notes

   - If there is no connection named [SVMCONIF], SVmco has probably not been installed. Always change the settings after SVmco installation.
   - Do not change the connection name [SVMCONIF]. Otherwise, the settings can be overwritten by the automatically set values in a SVmco update.

3. Select [Internet Protocol (TCP/IP)]. Then, click the [Properties] button.

   >> The [Internet Protocol (TCP/IP) Properties] dialog box appears.

4. Set the IP address and subnet mask.

5. Set the PSA-to-MMB communication LAN IP addresses in the SVmco configuration file.

File storage location : [SVmco installation folder]\etc\fujitsu\SVmco\usr\ tommbipsetup.conf

Setting values: Enter the IP addresses set in Step 4.

<Setting example>

```
[NETWORK]

TOMMBIP=172.30.0.4 <IP address set by Step4>
```

6. To apply the NIC settings for the dedicated PSA-to-MMB communication LAN, restart SVmco by using the following steps.

   Select [Control Panel] - [Administrative Tools] - [Services].

   Right-click [ServerView Mission Critical Option] in the right side of the window. Then, select [Restart].

- Making settings through a remote desktop connection

To configure the PSA-to-MMB communication LAN through a remote desktop connection, you need a console session connection. Establish this connection by using the following procedure.

1. Select [Start] - [Run].

   >> The [Run] dialog box appears.

2. Enter "mstsc /v:<servername/ip address>/console" in the [Open] field. Then, click the [OK] button.

Specify the connected server name or the IP address in <servername/ip address>. (You cannot specify its virtual IP address in the cluster.)
You can check the details of mstsc options by entering "mstsc /?".

2.2.2 Confirming management LAN settings

Make settings for the management LAN. If necessary, also configure any duplication with teaming or GLS, for example.

After completing the above network settings for the management LAN, perform the operations in 2.2.5 Setting the management LAN IP address.

Note

In the PRIMEQUEST environment, it is necessary to specify OFF for the STP function of the switch that connects to the management LAN used for communication with the MMB.

2.2.3 Installing the PSHED Plugin driver

The PSHED Plugin driver expands the WHEA (Windows Hardware Error Architecture) functions.

This driver is not automatically installed. Manually install the driver with the batch file (plugin_install.bat) stored in the following folder.

SVmco installation folder\fjpsaplg\plugin_install.bat (Example: C:\Program Files (x86)\Fujitsu\ServerView Suite\SVmco\fjpsaplg\plugin_install.bat)

Remarks

The following functions do not work unless the driver is installed:

- Suppression of logging of Correctable Error events to the Event Viewer (Windows system event log)

- State transition to Stop Error for a Blue Screen of Death event ([System Progress] in the [Power Control] window of the MMB Web-UI)

Notes

- Do not execute the installation batch more than once.
  If it is executed more than once, as many PRIMEQUEST PSHED Plugin drivers as the number of times executed are installed.

- If the installation batch is executed multiple times, no operational problems occur but multiple PRIMEQUEST PSHED Plugin drivers are displayed by the Device Manager.
  In this case, uninstall all the PRIMEQUEST PSHED Plugin drivers and then reinstall one according to the following procedure. After the reinstallation, the operating system must be restarted.

  1. Record the number of times [PRIMEQUEST PSHED Plugin Driver] appears under [System Devices] in the Device Manager.

  2. Execute the following PSHED Plugin driver uninstallation batch as many times as the number recorded in step 1.

PSHED Plugin driver uninstallation batch storage location: *SVmco installation folder*\fjpsaplg\plugin_uninstall.bat (Default. C:\Program Files (x86)\Fujitsu\ServerView Suite\SVmco\fjpsaplg\plugin_uninstall.bat)

3. Restart the operating system.

4. Confirm that no [PRIMEQUEST PSHED Plugin Driver] appears under [System Devices] in the Device Manager.

5. Reinstall the PRIMEQUEST PSHED Plugin driver according to ■Operations below.

■ Operations

1. Open the following folder, and double-click [plugin_install.bat].

SVmco installation folder\fjpsaplg (Example: C:\Program Files (x86)\Fujitsu\SVmco\fjpsaplg)

2. Restart the operating system. Then, the driver starts running.

3. Confirm that [PRIMEQUEST PSHED Plugin Driver] appears under [System Devices] in the Device Manager. If the Device Manager does not display the driver, repeat the procedure from step 1.

2.2.4 Configuring the Windows Firewall

For operation with the Windows Firewall enabled, the following ports must be open to enable them to send and receive data from the MMB.

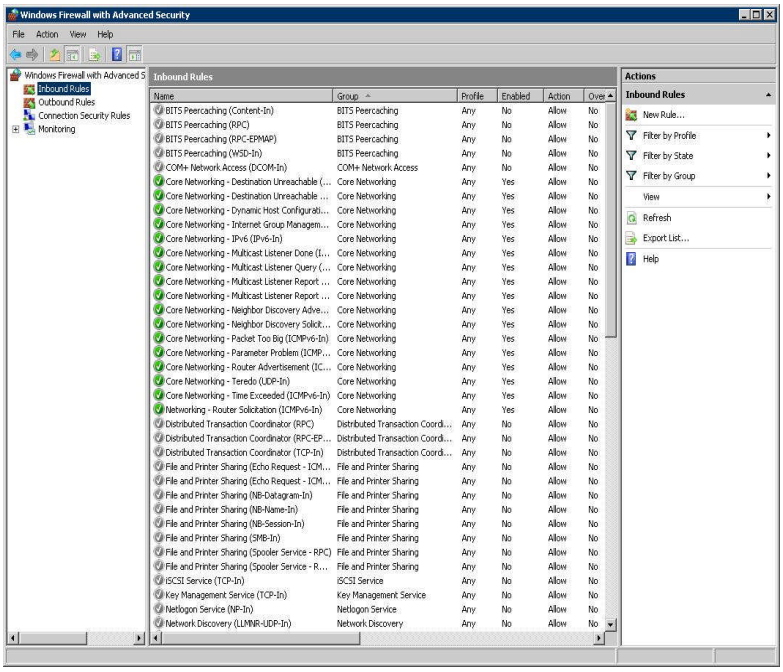
- SNMP Service uses UDP port 161 (to receive data from the MMB).

- svmcommbs.exe uses a port to send data to the MMB (TCP port 5000 on the MMB side).
- svmcommbs.exe uses ICMP as the protocol for the MMB.

■ Operations

1. Select [Start] - [Administrative Tools] - [Windows Firewall with Advanced Security].

2. The [Windows Firewall with Advanced Security] window appears. Click [Inbound Rules] in the left pane. The [Inbound Rules] list appears in the center pane.

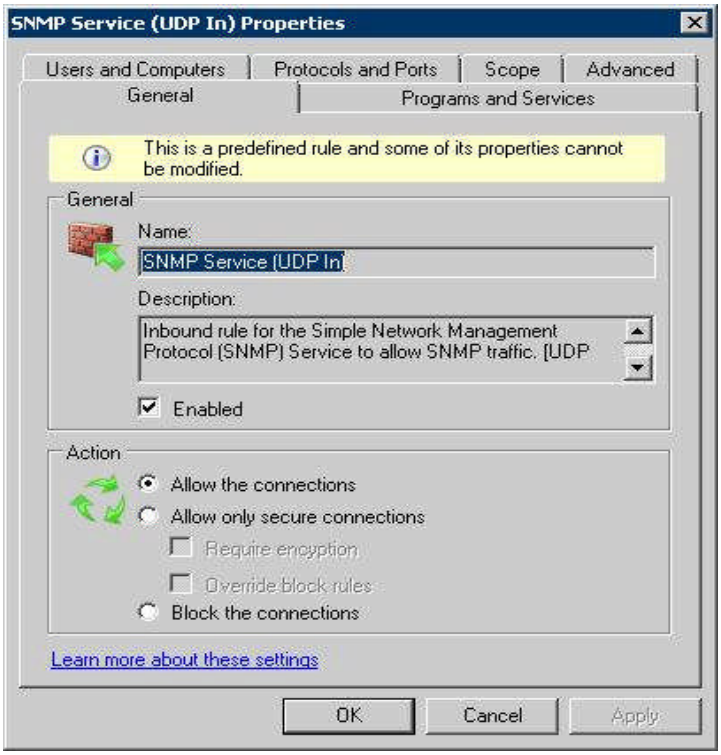

Windows Firewall with Advanced Security
File Action View Help
Windows Firewall with Advanced S
Inbound Rules
Outbound Rules
Connection Security Rules
Monitoring
Inbound Rules
Name Group Profile Enabled Action Over
BITS Peercaching (Content-In) BITS Peercaching Any No Allow No
BITS Peercaching (RPC) BITS Peercaching Any No Allow No
BITS Peercaching (RPC-EPMAP) BITS Peercaching Any No Allow No
BITS Peercaching (WSD-In) BITS Peercaching Any No Allow No
COM+ Network Access (DCOM-In) COM+ Network Access Any No Allow No
Core Networking - Destination Unreachable (... Core Networking Any Yes Allow No
Core Networking - Destination Unreachable ... Core Networking Any Yes Allow No
Core Networking - Dynamic Host Configurati... Core Networking Any Yes Allow No
Core Networking - Internet Group Managem... Core Networking Any Yes Allow No
Core Networking - IPv6 (IPv6-In) Core Networking Any Yes Allow No
Core Networking - Multicast Listener Done (I... Core Networking Any Yes Allow No
Core Networking - Multicast Listener Query (... Core Networking Any Yes Allow No
Core Networking - Multicast Listener Report ... Core Networking Any Yes Allow No
Core Networking - Multicast Listener Report ... Core Networking Any Yes Allow No
Core Networking - Neighbor Discovery Adve... Core Networking Any Yes Allow No
Core Networking - Neighbor Discovery Solicit... Core Networking Any Yes Allow No
Core Networking - Packet Too Big (ICMPv6-In) Core Networking Any Yes Allow No
Core Networking - Parameter Problem (ICMP... Core Networking Any Yes Allow No
Core Networking - Router Advertisement (IC... Core Networking Any Yes Allow No
Core Networking - Teredo (UDP-In) Core Networking Any Yes Allow No
Core Networking - Time Exceeded (ICMPv6-In) Core Networking Any Yes Allow No
Networking - Router Solicitation (ICMPv6-In) Core Networking Any Yes Allow No
Distributed Transaction Coordinator (RPC) Distributed Transaction Coordi... Any No Allow No
Distributed Transaction Coordinator (RPC-EP... Distributed Transaction Coordi... Any No Allow No
Distributed Transaction Coordinator (TCP-In) Distributed Transaction Coordi... Any No Allow No
File and Printer Sharing (Echo Request - ICM... File and Printer Sharing Any No Allow No
File and Printer Sharing (Echo Request - ICM... File and Printer Sharing Any No Allow No
File and Printer Sharing (NB-Datagram-In) File and Printer Sharing Any No Allow No
File and Printer Sharing (NB-Name-In) File and Printer Sharing Any No Allow No
File and Printer Sharing (NB-Session-In) File and Printer Sharing Any No Allow No
File and Printer Sharing (SMB-In) File and Printer Sharing Any No Allow No
File and Printer Sharing (Spooler Service - RPC) File and Printer Sharing Any No Allow No
File and Printer Sharing (Spooler Service - R... File and Printer Sharing Any No Allow No
iSCSI Service (TCP-In) iSCSI Service Any No Allow No
Key Management Service (TCP-In) Key Management Service Any No Allow No
Netlogon Service (NP-In) Netlogon Service Any No Allow No
Network Discovery (LLMNR-UDP-In) Network Discovery Any No Allow No
Actions
Inbound Rules
New Rule...
Filter by Profile
Filter by State
Filter by Group
View
Refresh
Export List...
Help

Windows Firewall window

3. Select and right-click [SNMP Service (UDP In)] in the [Inbound Rules] list. Then, click [Properties].

   The two default profiles for SNMP Service (UDP In) are [Domain] and [Private, Public]. Perform steps 3 to 7 for both profiles.

4. The [SNMP Service (UDP In) Properties] dialog box appears. Click the [General] tab. Then, check the [Enabled] check box in [General] (checked by default).

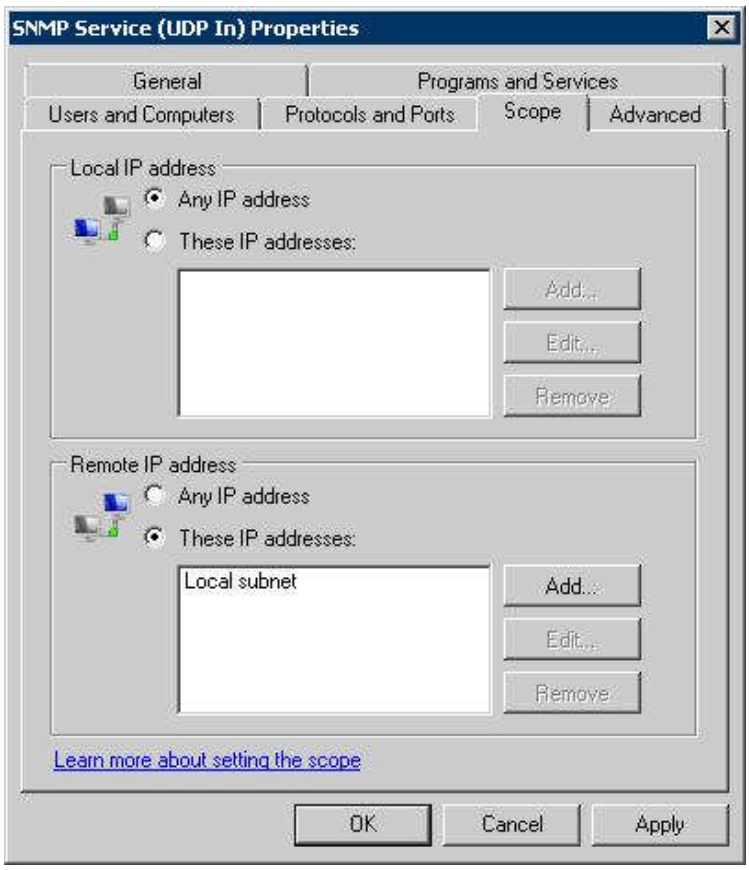


[General] tab in [SNMP Service (UDP In) Properties]

5. Click the [Scope] tab.

Select [Any IP address] for [Local IP Address].

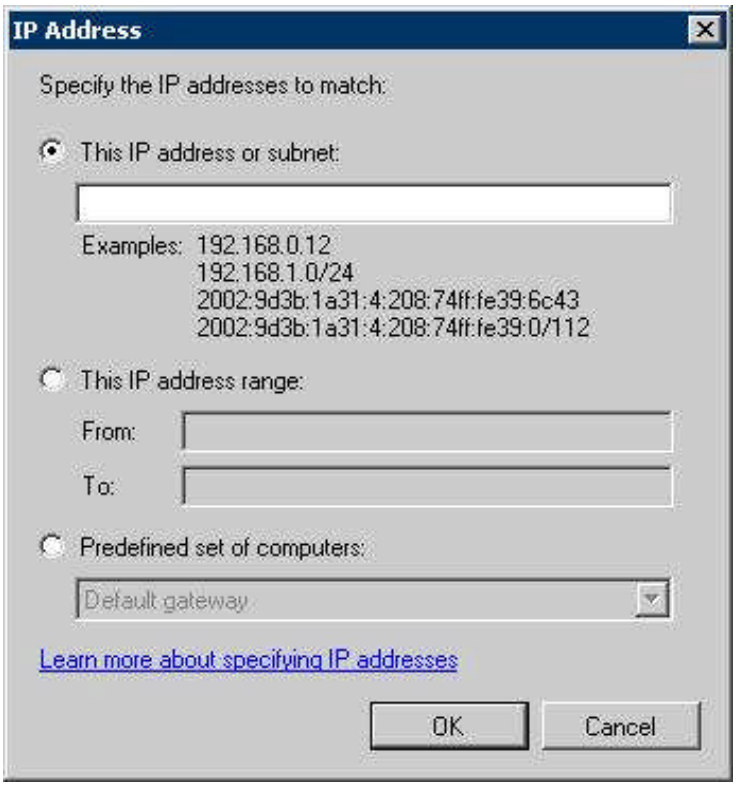
Select [These IP Addresses] in [Remote IP Address]. Then, click the [Add] button.



[Scope] tab in [SNMP Service (UDP In) Properties]

6. The [IP Address] dialog box appears. Click [Predefined set of computers].

   Select [Local subnet] from the list. Then, click the [OK] button.



[IP Address] dialog box

7. Click the [OK] button to close the [SNMP Service (UDP In) Properties] dialog box.

8. Click [Outbound Rules] in the left pane of the [Windows Firewall with Advanced Security] window.

   The [Outbound Rules] list appears in the center pane.

9. Click [New Rule] in the right pane of the [Windows Firewall with Advanced Security] window. The [New Outbound Rule Wizard] window appears with [Rule Type] displayed at the top left. Select [Custom]. Then, click the [Next] button.

10. The wizard displays the [Program] window, as indicated at the upper left. Select [This program path]. Then, click the [Browse] button. Select "svmcommbs.exe." Then, click the [Next] button.

    Remarks

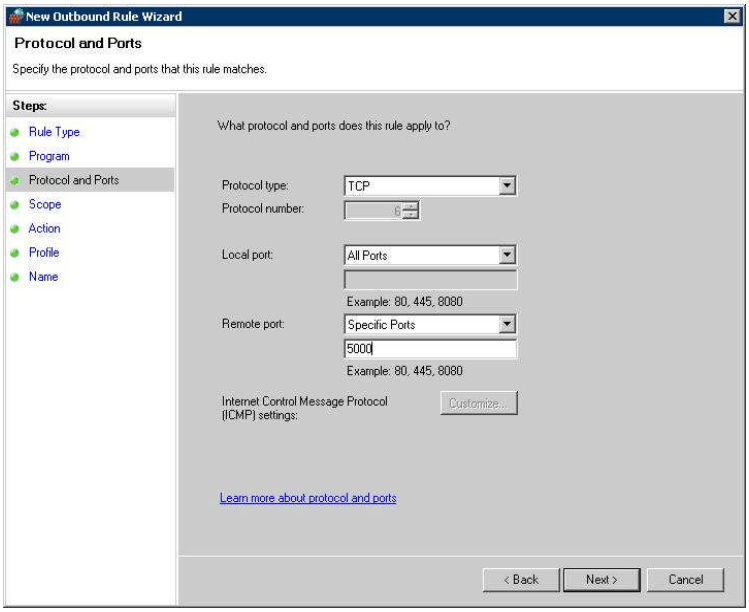
    svmcommbs.exe is in opt\SVmco\bin\ in the SVmco installation path. The default installation path for SVmco is Program Files\fujitsu\ServerView Suite\SVmco\.

11. The wizard displays the [Protocol and Ports] window, as indicated at the upper left. Select or enter values for the following items. Then, click the [Next] button.

    [Protocol and Ports] setting items

Window item	Selected or entered value
Protocol type	TCP
Local port	All Ports

Window item	Selected or entered value
Remote port	Select [Specific Ports]. Then, enter 5000 in the text box below it.



New Outbound Rule Wizard - Protocol and Ports

12. The wizard displays the [Scope] window, as indicated at the upper left. Select or enter values for the following items. Then, click the [Next] button.

[Scope] setting items

Window item	Selected or entered value
Which local IP addresses does this rule match?	Any IP address
Which remote IP addresses does this rule match?	Select [These IP addresses]. Then, click the [Add] button. Enter the IP address of the PSA-to-MMB communication LAN on the MMB side.

13. The wizard displays the [Action] window, as indicated at the upper left. Select [Allow the connection]. Then, click the [Next] button.

14. The wizard displays the [Profile] window, as indicated at the upper left. Check all the [Domain], [Private], and [Public] check boxes. Then, click the [Next] button.

15. The wizard displays the [Name] window, as indicated at the upper left. Enter "MCOMMBS" in the [Name] field. Then, click the [Finish] button.

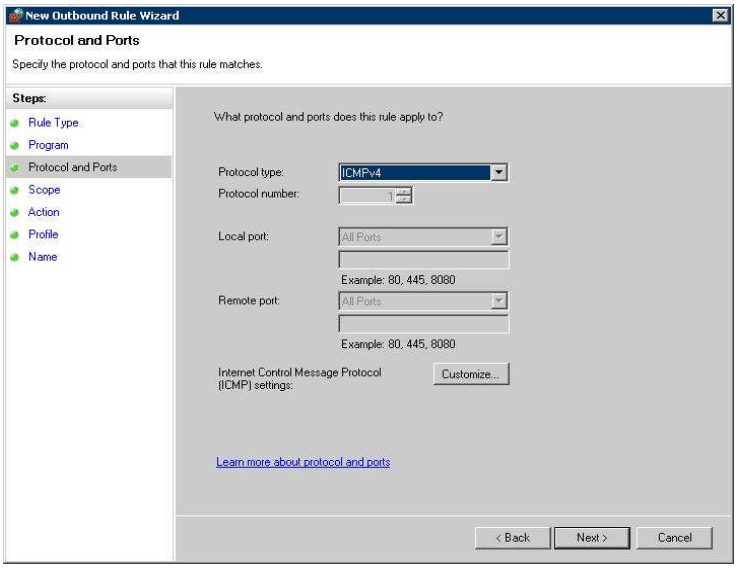
16. Click [New Rule] in the right pane of the [Windows Firewall with Advanced Security] window. The [New Outbound Rule Wizard] window appears with [Rule Type] displayed at the top left. Select [Custom]. Then, click the [Next] button.

17. The wizard displays the [Program] window, as indicated at the upper left. Select [This program path]. Then, click the [Browse] button. Select "svmcommbs.exe." Then, click the [Next] button.

Remarks

svmcommbs.exe is in opt\fujitsu\SVmco\bin\ in the SVmco installation path. The default installation path for SVmco is Program Files\fujitsu\ServerView Suite\SVmco\.

18. The wizard displays the [Protocol and Ports] window, as indicated at the upper left. Select [ICMPv4] in [Protocol type]. Then, click the [Next] button.



New Outbound Rule Wizard - Protocol and Ports

19. The wizard displays the [Scope] window, as indicated at the upper left. Select or enter values for the following items. Then, click the [Next] button.

[Scope] setting items

Window item	Selected or entered value
Which local IP addresses does this rule match?	Any IP address
Which remote IP addresses does this rule match?	Select [These IP addresses]. Then, click the [Add] button. Enter the IP address of the PSA-to-MMB communication LAN on the MMB side.

20. The wizard displays the [Action] window, as indicated at the upper left. Select [Allow the connection]. Then, click the [Next] button.

21. The wizard displays the [Profile] window, as indicated at the upper left. Check all the [Domain], [Private], and [Public] check boxes. Then, click the [Next] button.

22. The wizard displays the [Name] window, as indicated at the upper left. Enter "MCOICMP" in [Name]. Then, click the [Finish] button.

2.2.5 Setting the management LAN IP address

Set the partition management LAN IP address in SVmco. For details on the management LAN, see 1.3 Management LAN in the PRIMEQUEST 1000 Series Administration Manual (C122-E108EN).

1. Confirm the "ServerView Server Control" service starts.

If the service has not started, start SVagent.

- Starting SVagent

1. Click [Start] - [Administrative Tools] - [Services].

2. Select [ServerView Server Control] in the right side of the window.

3. Select [Action] - [Start] from the menu bar to start [ServerView Server Control].

2. Edit the *SVmco installation folder* \etc\fujitsu\SVmco\usr\ipsetup.conf file.

Change the following IP address in an editor or similar application.

Syntax

```
[NETWORK]

ManagementIP=<management LAN IP address>
```

Example of input

```
[NETWORK]
ManagementIP=192.168.0.1
```

3. Run the following command.

Syntax

```
MgmtIP.exe -f
```

2.2.6 Setting the destinations of traps from a partition

For direct transfer of a SVmco expansion trap from a partition, set the trap destination and SVmco trap notification by using the following procedure.

Remarks

- SNMPv3 is not supported in Windows.
- Make settings only as needed. Operations management software needs these settings to manage events by partition.
- The trap destination must be running both a trap receiving application and a trap manager to be able to receive standard SNMP Service traps.

■ Operations

1. Click [Start] - [Administrative Tools] - [Services].

2. Double-click [SNMP Service] in the right side of the window.

   >> The [SNMP Service Properties] dialog box appears.

3. Click the [Trap] tab.

4. Enter the specified community name in the [Community Name] field. Then, click [Add to List].

5. Click [Add] in [Trap Send Destination].

   Enter the host name or IP address of the server receiving the trap (i.e., the trap destination). Then, click [Add].

   Click the [OK] button.

6. Select [Action] - [Restart] from the menu bar to restart SNMP Service.

■ How to confirm a trap destination setting

To confirm a trap destination setting, use the standard SNMP Service trap sent to restart SNMP Service in the above step 8. You can confirm the correct trap setting by checking whether the trap was received.

Remarks

The operation performed in step 6 on the trap source machine restarts SNMP Service.

After that operation, a Cold Start trap is posted to the trap receiving application at the trap destination. Cold Start is a standard SNMP Service trap.

snmptrapd runs on the Linux machine that is the trap destination to receive traps. snmptrapd outputs the following message to the system log. Confirm that the Linux machine received the trap normally.

```
Aug 17 14:50:03 pq-server snmptrapd[2600]: 2005-08-17 14:50:03 \
pq-server.fujitsu.com
[192.168.0.162] (via 192.168.0.162) TRAP, SNMP v1, community \
public SNMPv2-SMI::
enterprises.211.1.31.1.2.100.3 Cold Start Trap (0) Uptime: 0:00:00.00
```

\: This indicates that there is no line feed.

2.2.7 Setting the Watchdog Timer for monitoring after a STOP error (fatal system error)

If a STOP error (fatal system error) occurs in the system, the following situation results.

- After you select [Partition] - [Power Control] from the MMB Web-UI, the window displays "Stop Error" under [System Progress] for the relevant partition.
- The operating system acquires a memory dump.

You can set monitoring with the Watchdog Timer to perform recovery after the system freezes or otherwise becomes unresponsive in the above event.

Immediately after the specified time elapses, the MMB performs a Hard Reset to reboot the operating system.

■ Operations

1. Open the following file:

   SVmco installation folder\etc\fujitsu\SVmco\usr\pnwatchdog.conf

   Example: C:\fujitsu\ServerView Suite\SVmco\etc\fujitsu\SVmco\usr\pnwatchdog.conf

2. Specify the value of the following key. The default is 0.

   Section: [WATCHDOG]

   Key: [TIMER]

   Setting value (unit: seconds): 0 (Watchdog Timer disabled),

   1 to 6000 (Watchdog Timer monitoring time)

Remarks

Determine the setting value by measuring the time taken for a memory dump in the applicable partition. If the measured time exceeds 6000 seconds (one hour and 40 minutes), specify 0 (Watchdog Timer disabled).

If the specified time is too short for a memory dump, the Watchdog Timer times out and triggers a Hard Reset. In such cases, a memory dump cannot normally be acquired.

2.2.8 Installing a SVmco update

This section describes the SVmco update installation procedure.

Remarks

- Using a fix program of the same version as the installed SVmco version:

  SVmco uninstallation begins when you click the [Delete] button and click the [Next] button in the confirmation message dialog box. After that, SVmco is reinstalled. If you do not want to uninstall SVmco, click the [Cancel] button in the confirmation message dialog box.

- For details on how to acquire fix programs, contact the distributor where you purchased your product, or your sales representative.

■ Operations

The descriptions in this section assume that the SVmco update file

(ServerViewMissionCriticalOption_Win.exe) has already been saved in

a work directory.

When update SVmco, it is necessary to stop and start ServerView Agents.

If ServerView Agents is not stopped, some files can not be replaced.

Perform this operation with the Administrator authority.

1. Open Services of Administrative Tools.
2. Select and stop SNMP Service.
3. Select and stop ServerView Virtualization Management Agent.
4. Select and stop ServerView Server Control Service.
5. Open the working directory using Explorer.
6. Run the ServerViewMissionCriticalOption_Win.exe and follow the instruction given by it.
7. Select and start ServerView Server Control Service.

Note1) It may be required for OS reboot after SVmco update.

2.2.9 Uninstalling SVmco

This section describes the SVmco uninstallation procedure.

Remarks

Uninstalling SVmco deletes all the files in the SVmco installation folder. Save the necessary files before uninstallation. To confirm the SVmco installation folder, check the environment variable (SVmco_INSTALLPATH).

Operations

1. Select [Control Panel] - [Programs and Features].

   The [Programs and Features] window appears.

2. Select [ServerView Mission Critical Option] from the list of currently installed programs. Then, click [Remove].

   The Preparing to install window appears. Then, a deletion confirmation message appears.

3. Click the [Yes] button.

   >> Uninstallation begins.

   Immediately after uninstallation is completed, the Uninstall Complete window appears.

4. Click the [Finish] button.

5. To delete the PSHED Plugin driver, you need to restart the operating system. Be sure to confirm that the operating system can be restarted, before restarting it.

2.3 Configuring SVmco (VMware)

The bundled software is stored in ServerView Suite DVD1. Copy the files from ServerView SuiteDVD1 and use them.

2.3.1 Installing SVmco

This section describes how to install SVmco.

1. Start the terminal with root privileges.

2. Mount ServerView Suite DVD1.

3. Copy the SVmco module to any directory of the PRIMEQUEST 1000x2 series server. Then, expand the files.

```
# cp MNT/SVSLocalTools/Japanese/SVmco/SR_Linux/\

SVmco-XXXRHEL5.tgz  /tmp
```

* MNT is the mount point.

\: This indicates that there is no line feed.

XXX depends on the version.

In the above example, the "any directory" is /tmp.

```
# cd /tmp

# tar xvzf SVmco-XXXRHEL5.tar.gz
```

4. Execute the following command.

```
# cd SVmco
```

```
# ./INSTALL.sh -SVIM
```

5. After the installation of SVmco, make the required settings. For details on the setting method, see *SVmco Setting Procedure for VMware* and 2.2 Configuring SVmco (Linux: Red Hat Enterprise Linux 5).

2.3.2 Settings after SVmco Installation

The settings after SVmco installation for VMware partly differ from those for RHEL. This section describes only the different parts.

For details on the parts of the setting procedure that are the same as those for RHEL, see the following.

Settings after SVmco Installation (VMware)

Settings after SVmco installation	For VMware
Configuring the PSA-to-MMB communication LAN	2.3.3 Configuring the network
Confirming management LAN settings	2.3.3 Configuring the network
Confirming SELinux function settings	(No settings required)
Confirming the firewall function	2.3.4 Configuring the firewall

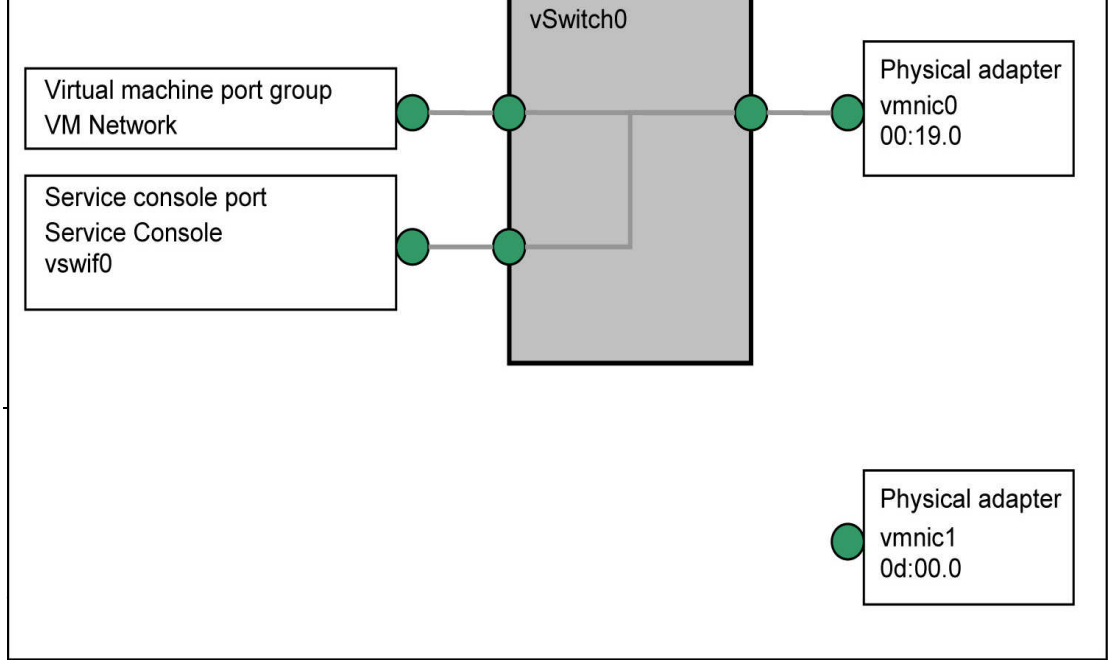
Settings after SVmco installation	For VMware
Setting the destinations of traps from a partition	Same as for RHEL5 2.1.6 Setting the destinations of traps from a partition
Setting the management LAN IP address	Same as for RHEL5 2.1.5 Setting the management LAN IP address
Configuring SNMP to use duplicate disks	Same as for RHEL5 2.1.7 Configuring SNMP to use duplicate disks
Configuring the default gateway	2.3.6 Configuring the default gateway

2.3.3 Configuring the network

This section describes the network settings required to install and operate SVmco.

Use the following workflow to perform the work.

- Confirming the PSA-to-MMB communication LAN and management LAN
- Configuring the management LAN
- Configuring the PSA-to-MMB communication LAN



Network configuration immediately after installation of OS

Remark

For details on each command used in the settings below, use man for confirmation.

Note

Do not set the host name before setting the IP address of vswif0, which exists by default immediately after the installation of the operating system. If you do so, VMware may change the value of /etc/hosts to an unintended value.

The description here is based on the assumption that vswif0 is used as the management LAN.

- Confirming the PSA-to-MMB communication LAN and management LAN

1. The PSA-MMB communication LAN uses the physical adapter assigned BUS number 0000:00:19.0.

   The management LAN uses an arbitrary physical adapter.

Execute the esxcfg-nics command to confirm the physical adapters used for the PSA-to-MMB communication LAN and management LAN.

```
# esxcfg-nics -l
Name    PCI         Driver  Link    Speed     Duplex\
MAC     Address         MTU     Description
vmnic0  00:19.00    e1000e  Up      100Mbps   Half \
00:17:42:de:7c:4b   1500 \
Intel Corporation 82567LF-2 Gigabit Network Connection
vmnic1  0d:00.00    igb     Up      100Mbps   Full \
00:17:42:9b:dc:b4   1500 \
Intel Corporation 82576 Gigabit Network Connection
vmnic2  0d:00.01    igb     Down    0Mbps     Half \
00:17:42:9b:dc:b5   1500 \
Intel Corporation 82576 Gigabit Network Connection
```

\: This indicates that there is no line feed.

In the above example, vmnic0 is used for the PSA-to-MMB communication LAN, and vmnic1is used for the management LAN.

- Configuring the management LAN

1. Use vswif0, which exists by default immediately after the installation of the operating system, for the interface of the management LAN.

Execute the esxcfg-vswif command to confirm the status of vswif0.

```
# esxcfg-vswif -l

Name Port Group/DVPort IP Family IP Address \

Netmask Broadcast Enabled TYPE

vswif0 Service Console IPv4 N/A \

N/A N/A true NONE
```

\: This indicates that there is no line feed.

The above example shows that vswif0 has been set for the Port Group name of "Service Console."

2. Execute the esxcfg-vswitch command to confirm the status of the virtual switch.

```
# esxcfg-vswitch -l

Switch Name Num Ports Used Ports Configured Ports \

MTU Uplinks

vSwitch0    64        2          64 \

1500        vmnic0


 PortGroup  Name VLAN ID Used Ports Uplinks

 VM Network      0       0          vmnic0
```

```
Service Console 0       1          vmnic0
```

\: This indicates that there is no line feed.

The above example shows that Service Console exists in vSwitch0, and the physical adapter is vmnic0.

3. Disconnect the physical adapter from vSwitch0, and then connect the physical adapter vmnic1, which is used for the management LAN, to vSwitch0.

   Execute the esxcfg-vswitch command to disconnect the physical adapter vmnic0 from vSwitch0.

```
# esxcfg-vswitch -U vmnic0 vSwitch0

# esxcfg-vswitch -l

Switch Name Num Ports Used Ports Configured Ports \

MTU    Uplinks

vSwitch0 64          2          64 \

1500


 PortGroup Name VLAN ID Used Ports Uplinks

 VM Network      0       0

 Service Console 0       1
```

Execute the esxcfg-vswitch command to connect the physical adapter vmnic1 to vSwitch0.

```
# esxcfg-vswitch -L vmnic1 vSwitch0

# esxcfg-vswitch -l

Switch Name Num Ports Used Ports Configured Ports \

MTU    Uplinks

vSwitch0 64          2          64 \

1500 vmnic1


 PortGroup Name VLAN ID Used Ports Uplinks

 VM Network      0      0          vmnic1

 Service Console 0      1          vmnic1
```

4. Execute the esxcfg-vswif command to assign the IP address (192.168.0.2) to vswif0.

```
# esxcfg-vswif -i 192.168.0.2 -n 255.255.255.0 vswif0

# esxcfg-vswif -l

Name Port Group/DVPort IP Family IP Address \

Netmask   Broadcast     Enabled   TYPE

vswif0    Service Console   IPv4   192.168.0.2 \

255.255.255.0 192.168.0.255 true STATIC
```

\: This indicates that there is no line feed.

■ Configuring the PSA-to-MMB communication LAN

7. Execute the esxcfg-vswitch command to create a virtual switch (vSwitch1).

```
# esxcfg-vswitch -a vSwitch1

# esxcfg-vswitch -l

Switch Name Num Ports Used Ports Configured Ports \

MTU Uplinks

vSwitch0    64        2          64 \

1500 vmnic1


PortGroup Name   VLAN ID      Used Ports      Uplinks

VM Network    0      0        vmnic1

Service Console  0      1        vmnic1


vSwitch1  64  2    64 \

1500


PortGroup Name VLAN ID Used Ports Uplinks
```

\: This indicates that there is no line feed.

8. Execute the esxcfg-vswtich command to connect the physical adapter vmnic0 to the virtual switch.

```
# esxcfg-vswitch -L vmnic0 vSwitch1
# esxcfg-vswitch -l
Switch Name Num Ports Used Ports Configured Ports \
MTU Uplinks
vSwitch0    64        2          64 \
1500 vmnic1

 PortGroup Name VLAN ID Used Ports Uplinks
 VM Network      0      0          vmnic1
 Service Console 0      1          vmnic1

vSwitch1      64        2          64 \
1500 vmnic0

 PortGroup Name VLAN ID Used Ports Uplinks
```

9. Add the port group (PSA-MMB) to the created switch.

```
# esxcfg-vswitch -A PSA-MMB vSwitch1
# esxcfg-vswitch -l
Switch Name Num Ports Used Ports Configured Ports \
```

```
MTU Uplinks
vSwitch0    64        2          64 \
1500 vmnic1


 PortGroup Name VLAN ID Used Ports Uplinks
 VM Network      0       0         vmnic1
 Service Console 0       1         vmnic1


vSwitch1   64     2     64 \
1500       vmnic0


 PortGroup Name VLAN ID Used Ports Uplinks
 PSA-MMB        0       0         vmnic0
```

10. Execute the esxcfg-vswif command to create a virtual port (vswif1).

    The IP address to be set depends on the partition number.

    Use the values in the table below.

    IP addresses to be set for virtual ports

Partition number	IP address	Subnet mask
0	172.30.0.2	255.255.255.0

Partition number	IP address	Subnet mask
1	172.30.0.3	
2	172.30.0.4	
3	172.30.0.5	

<Example with the partition number of #2 and the PSA-MMB port group of vswif1>

```
# esxcfg-vswif –a vswif1 -i 172.30.0.4 -n 255.255.255.0 \
-p PSA-MMB
# esxcfg-vswif -l
Name Port Group/DVPort IP Family IP Address \
Netmask Broadcast Enabled TYPE
vswif0 Service Console IPv4 192.168.0.2 \
255.255.255.0 192.168.0.255 true STATIC
vswif1 PSA-MMB IPv4 172.30.0.4 \
255.255.255.0 172.30.0.255 true STATIC
```

\: This indicates that there is no line feed.

11. Add the following setting to the PSA-to-MMB communication LAN:

Speed: 100 Mbps

Duplex: full

<Example with the PSA-to-MMB communication LAN of vmnic0>

```
# esxcfg-nics vmnic0 -s 100 -d full
```

12. Set the PSA-to-MMB communication LAN IP addresses in the SVmco configuration file.

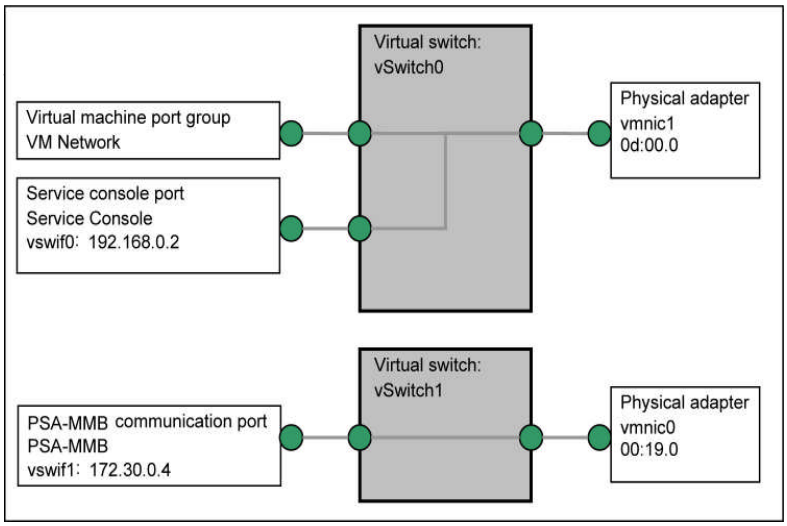
File storage location : /etc/fujitsu/SVmco/usr/tommbipsetup.conf

Setting values: Enter the IP addresses set in Step 4.

<Setting example>

```
[NETWORK]

TOMMBIP=172.30.0.4
```

The configuration work is completed through the above steps.



Network configuration after setup

2.3.4 Configuring the firewall

This section describes how to configure the firewall for SVmco operation.

For SVmco, the following ports must be open.

Configuring the firewall for SVmco operation

No.	Port	Port number	Description
1	snmp port	udp/snmp or 161	General snmp communication port
3	psa-mmb communication port	tcp/5000 on MMB side	MMB-PSA port For reporting events and configuration information

Examples of firewall configurations

No.	Implementation example
1	# esxcfg-firewall -o 161,udp,in,SNMP
3	# esxcfg-firewall -o 5000,tcp,out,PSA-MMB

- Confirming firewall settings

```
#esxcfg-firewall -q
```

```
Opened ports:

   SNMP        : port 161 udp.in

   PSA-MMB     : port 5000 tcp.out
```

2.3.5 Configuring the default gateway

Configure the default gateway when installing the operating system.

If the default gateway is not configured for some reason, make this setting.

1. Execute the route command to specify a temporary default gateway.

```
route add default gw <GATEWAY>
```

Example: When specifying 192.168.0.1 as the default gateway

```
# route add default gw 192.168.0.1
```

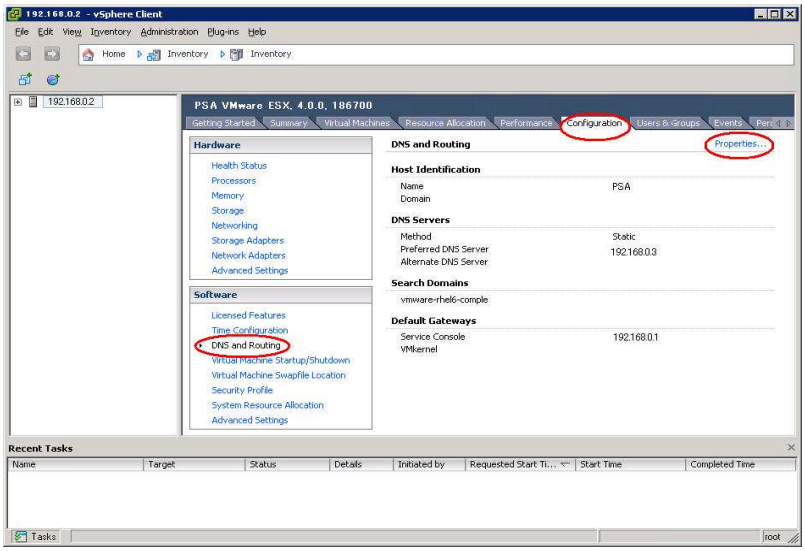
2. Use VMware vSphere Client to connect to the service console, and then configure the default gateway from the service console.

    1. Start VMware vSphere Client.

    2. Select [Home] - [Inventory] - [Inventory], and then click the [Configuration] tab.

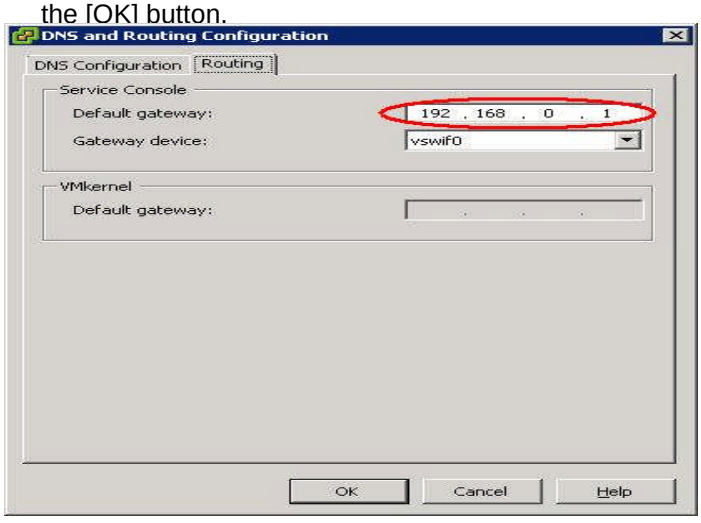
    3. Click [DNS and Routing] in the [Software] area in the lower left of the window.

4. Click [Properties] in the upper right of the window displaying the [DNS and Routing] information.



VMware vSphere Client

5. Click the [Routing] tab, and make the [Default gateway] setting in the [Service Console] area. Then click the [OK] button.



[DNS and Routing Configuration] dialog box

Note

For details on VMware vSphere Client, see the manual of VMware.

2.3.6 Retrieving VMware SVmco maintenance information

1. When a problem regarding SVmco occurs, execute the SVmco troubleshooting information collection command (getosvmco), and then execute the vm-support command. getosvmco command

```
# /opt/fujitsu/SVmco/sh/getosvmco <file name>
```

2. vm-support command

<Execution example>

```
# vm-support
```

Remarks

In VMware, the core file is output in /var/core, and is not automatically deleted. After executing the vm-support command, we recommend deleting the core file as required.

2.3.7 Notes on VMware SVmco

Note the following points on SVmco in VMware.

- SVmco can run only on the console operating system. It manages the configuration of devices in the console operating system and detects device problems. It cannot run in the guest operating system, and must not be installed in the guest operating system.

- It may take time (at least five minutes) to start SVmco after starting the operating system.

3 SVmco CLI (Command Line Interface) Operations

This chapter describes the commands for operating SVmco from the CLI (command line interface).

To use the CLI, first log in to the operating system.

Some commands may not be available depending on the user privileges. See the following table.

3.1 CLI command list

The following table lists the CLI commands for SVmco.

Commands

No.	Command name	Privileges	Remarks	command		
				Linux	Windows	VMware
1	Disk management command	root (Linux) or Administrator (Windows) privileges required (*3)	For HDD operation	Yes	Yes (*1)	No
2	SVmco investigation data collection	root (Linux) or Administrator (Windows) privileges	For collecting SVmco data for investigation	Yes	Yes	Yes

No.	Command name	Privileges	Remarks	command		
				Linux	Windows	VMware
	command	required (*3)				
3	SNMP security setting command	root (Linux) or Administrator (Windows) privileges required (*3)	For setting hosts from which to accept SNMP packets	No	Yes	No
4	PCI card operation command	root (Linux) or Administrator (Windows) privileges required (*3)	For PCI Hot Plug	No	Yes	No
5	Firewall setting command for management LAN interface	root privileges required	For supporting firewall settings for management LAN interface to provide PRIMECLUSTER linkage	Yes	No	No
6	PSA-MMB communication LAN setting command	Administrator (Windows) privileges required (*3)	For setting the PSA-MMB communication LAN	No	Yes	No

*1 This command supports different options in Linux and Windows.

*2 Starting SVmco: Click [Control Panel] - [Administrative Tools] - [Services]. Start [PRIMEQUEST Environment Control] Service. Then,

[ServerView Mission Critical Option] and [PRIMEQUEST PEM Command Service] start in this order.

Stopping SVmco: Click [Control Panel] - [Administrative Tools] - [Services]. Then, select [PRIMEQUEST Environment Control Service], [ServerView Mission Critical Option], and [PRIMEQUEST PEMCommand Service].

*3 In Windows, if an operating system function (access control function) is used to execute the command with privileges other than Administrator privileges, the end status is undefined.

3.2 Disk Management Command (diskctrl)

The diskctrl command lists HDDs, stops the disk rotation of an HDD, or turns on/off the Location LED of an HDD, according to the specified option. The Location LED indicates where an HDD is mounted.

Remarks

- This command supports different options in Linux and Windows.
- The user must have root (Linux) or Administrator (Windows) privileges to execute this command. In Windows, if an operating system function (access control function) is used to execute the command with privileges other than Administrator privileges, the end status is undefined.
- When powering off an HDD for an operation such as preventive replacement, first perform the following operation.
  - If the HDD is configured for mirroring in GDS, remove the HDD from the configuration.
  - If the HDD is not configured for mirroring, unmount it.

Notes

- For details on the operating procedures related to this command, see 4 Hot Replacement of Hard Disks.
- This command does not support RAID devices.
- VMware does not support hot replacement of hard disks.
- When you replace a hard disk with this command, the following message may appear during the disk mounting operation. The command will have been executed normally even if this message appears.

```
kernel: mptscsih: ioc0: >>  Attempting bus reset! \

(sc=e000004082adc480)

kernel: mptbase: ioc0: IOCStatus(0x0048):  SCSI \

Task Terminated
```

\: Indicates that the line is not broken.

- To stop disk rotation after a hard disk has been mistakenly inserted, first wait about 60 seconds and then stop the disk rotation. If you attempt to stop the disk rotation immediately after inserting the disk, an error message like that shown below may appear. This is because inserting the disk triggered a Hot Plug process in the operating system.

```
kernel: Device sdb not ready.

kernel: end_request: I/O error, dev sdb,   sector 204706

kernel: Buffer I/O error on device sdb1,   logical block 6396
```

- If multiple disk management commands are executed at the same time, they may terminate abnormally. Confirm that there is no other instance of the disk management command being executed before executing the command.

(1) Syntax

- In Linux

```
/opt/fujitsu/SVmco/bin/diskctrl {-l|-e|-i|-o|-c} {Devicename|
iocx/slotno}
```

- In Windows

```
diskctrl {-l|-i|-o} {diskno| \\device\scsiportno\slotno}
```

(2) Options

{-l|-e|-i|-o|-c}

- l: Status display
  This option displays a list of HDDs recognized by the operating system.

- e: Disk rotation stop instruction

  This option stops the rotation of the HDD specified in [Devicename] or [iocx/slotno]. Then, it turns on the Fault LED.

- i: Location display

  This option causes the Fault LED to blink to indicate the location of the HDD specified in [Devicename], or the SGPIO controller specified in [iocx/slotno].

- o: Location turn-off

  This option turns off the Fault LED that indicates the location of the HDD specified in [Devicename] or the SGPIO controller specified in [iocx/slotno].

- c: Fault LED turn-off instruction

  This option turns off the Fault LED that indicates the location of the SGPIO controller specified in [iocx/slotno].

Remarks

- How to specify the target in Linux

  To operate an HDD, specify its logical device name or slot number for an SGPIO controller. Before specifying a logical device name, confirm that it exists in the operating system by using the status display (-l) option.

  - Devicename: Specify a logical device name in the operating system.

    Example: /dev/sda

  - iocx/slotno: Specify the IOC number of an SGPIO controller and a disk slot number.

    Example: ioc0/1 specifies slot 1 of ioc0.

- How to specify the target in Windows

  To operate an HDD, specify its logical device name or slot number for an SGPIO controller. Before specifying a device, confirm that it exists by using the status display (-l) option.

  - diskno: Specify a disk number (which appears in Disk Administrator).

Example: 0 specifies Disk0.

o \\device\scsiportno\slotno: Specify the SCSI number of an SGPIO controller and a disk slot number.

Example: \\device\scsiport1\2 specifies slot 2 of SCSI number 1.

(3) Usage example

- In Linux

The following example shows all the SGPIO controllers in the operating system and a list of their slot statuses.

```
# /opt/fujitsu/SVmco/bin/diskctrl -l
```

SGPIO controller and slot status (Linux)

Display example	Description of status
ioc0 0 /dev/sda Fault LED-Off 1 /dev/sdb Fault LED-Off 2 --mount Fault LED-Off 3 --mount Fault LED-On	 <= Operating normally <= Rotation stopped
ioc1 0 /dev/sdd Fault LED-Identify 1 none	 <= Displaying location <= Empty slot

Display example	Description of status
2 none 3 none	

Remarks

The numbers shown under ioc are slot numbers.

- To stop the rotation of an HDD to be replaced or removed

```
# /opt/fujitsu/SVmco/bin/diskctrl -e ioc0/3
```

- To confirm the mounting location for an HDD to be added

```
# /opt/fujitsu/SVmco/bin/diskctrl -i ioc0/3
```

- To turn off the blinking FaultLED indicating the location of the HDD that must be replaced or inserted

```
# /opt/fujitsu/SVmco/bin/diskctrl -o ioc0/3
```

- To turn off the Fault LED after stopping disk rotation

```
# /opt/fujitsu/SVmco/bin/diskctrl -c ioc0/3
```

- In Windows

The following example shows all the SGPIO controllers in the operating system and a list of their slot statuses.

```
diskctrl -l
```

SGPIO controller and slot status (Windows)

Display example	Description of status
\\device\scsiport0	
0 Disk0 Fault LED-Off	<= Operating normally
1 Disk1 Fault LED-Identify	<= Displaying location
2 none	<= Empty slot
3 --mount Fault LED-On	<= Rotation stopped

Remarks

The numbers shown under \\device\scsiportx are slot numbers.

- To confirm the mounting location of an HDD

```
diskctrl -i 1
```

- To turn off the blinking Fault LED indicating the location

```
diskctrl -o 1
```

(4) Output messages

The following messages appear for this CLI command.

In Linux

SVmco : W 02152 diskctrl no memory available
SVmco : W 02158 diskctrl Cannot blinking location-LED
SVmco : W 02159 diskctrl Cannot clear location-LED
SVmco : W 02165 diskctrl Operation not permitted
SVmco : W 02167 diskctrl Invalid option

In Windows

SVmco : W 02152 diskctrl no memory available
SVmco : W 02158 diskctrl Cannot blinking location-LED
SVmco : W 02159 diskctrl Cannot clear location-LED
SVmco : W 02165 diskctrl Operation not permitted
SVmco : W 02167 diskctrl Invalid option
SVmco : W 02169 diskctrl too few or more option

SVmco : W 02170 diskctrl Cannot stop HDD
SVmco : W 02171 diskctrl Cannot get device information(SCSI)
SVmco : W 02172 diskctrl Cannot get device information(Registry)
SVmco : W 02173 diskctrl Cannot get device
SVmco : W 02174 diskctrl Device not found
SVmco : W 02181 diskctrl Cannot get device information(Snmp)
SVmco : W 02182 diskctrl Cannot get device information(WMI)
SVmco : W 02187 diskctrl internal error
SVmco : W 02189 diskctrl Target Device is not connected

(5) Message Details

- Linux

SVmco : W 02152 diskctrl no memory available

Meaning:

A memory shortage occurred.

Corrective action:

Check the free space of the system memory. Terminate unnecessary programs. Then, try again.

SVmco : W 02158 diskctrl Cannot blinking location-LED

Meaning:

An attempt to blink the LED failed.

Corrective action:

Check the hardware environment. Execute the command again.

If the problem persists even after you execute the command again, collect the necessary maintenance information, contact your sales representative or a field engineer.

SVmco : W 02159 diskctrl Cannot clear loation-LED

Meaning:

An attempt to turn off the LED failed.

Corrective action:

Check the hardware environment. Execute the command again.

If the problem persists even after you execute the command again, collect the necessary maintenance information, contact your sales representative or a field engineer.

SVmco : W 02165 diskctrl Operation not permitted

Meaning:

The user does not have sufficient privileges to execute the command.

Corrective action:

Log in as a superuser, and execute the command.

SVmco : W 02167 diskctrl Invalid option

Meaning:

The specified option is invalid.

Corrective action:

Confirm that the options and the disk are correctly specified. Then, try again.

- Windows

SVmco : W 02152 diskctrl no memory available

Meaning:

A memory shortage occurred.

Corrective action:

Check the free space of the system memory. Terminate unnecessary programs. Then, try again.

SVmco : W 02158 diskctrl Cannot blinking location-LED

Meaning:

An attempt to blink the LED failed.

Corrective action:

Check the hardware environment. Execute the command again.

If the problem persists even after you execute the command again, collect the necessary maintenance information, contact your sales representative or a field engineer.

SVmco : W 02159 diskctrl Cannot clear location-LED

Meaning:

An attempt to turn off the LED failed.

Corrective action:

Check the hardware environment. Execute the command again.

If the problem persists even after you execute the command again, collect the necessary maintenance information, contact your sales representative or a field engineer.

SVmco : W 02165 diskctrl Operation not permitted

Meaning:

The user does not have sufficient privileges to execute the command.

Corrective action:

Log in with an ID with Administrator privileges, and execute the command.

SVmco : W 02167 diskctrl Invalid option

Meaning:

The specified option is invalid.

Corrective action:

Confirm that the options and the disk are correctly specified. Then, try again.

SVmco : W 02169 diskctrl too few or more option

Meaning:

The number of command options is incorrect.

Corrective action:

Check the specified options. Specify options correctly. Then, try again.

SVmco : W 02170 diskctrl Cannot stop HDD

Meaning:

The HDD could not be stopped from running.

Corrective action:

Check the hardware environment. Execute the command again.

If the problem persists even after you execute the command again, collect the necessary maintenance information, contact your sales representative or a field engineer.

SVmco : W 02171 diskctrl Cannot get device information(SCSI)

Meaning:

Device information could not be retrieved from the SCSI device.

Corrective action:

Check the hardware environment. Execute the command again.The following causes are possible:

- The disk is configured only with RAID. (Disks in a RAID configuration are not controlled by diskctrl.)

SVmco : W 02172 diskctrl Cannot get device information(Registry)

Meaning:

The device information cannot be acquired from the registry.

Corrective action:

Check the hardware environment. Execute the command again.

If the problem persists even after you execute the command again, collect the necessary maintenance information, contact your sales representative or a field engineer.

SVmco : W 02173 diskctrl Cannot get device

Meaning:

Device acquisition (open) failed.

Corrective action:

Check the hardware environment. Execute the command again.

If the problem persists even after you execute the command again, collect the necessary maintenance information, contact your sales representative or a field engineer.

SVmco : W 02174 diskctrl Device not found

Meaning:

The specified device does not exist.

Corrective action:

Confirm that the device exists. Execute the command again.

SVmco : W 02181 diskctrl Cannot get device information(Snmp)

Meaning:

Device information could not be retrieved from snmp.

Corrective action:

Check the hardware environment. Execute the command again.

If the problem persists even after you execute the command again, collect the necessary maintenance information, contact your sales representative or a field engineer.

SVmco : W 02182 diskctrl Cannot get device information(WMI)

Meaning:

Device information could not be retrieved from WMI.

Corrective action:

Check the hardware environment. Execute the command again.

If the problem persists even after you execute the command again, collect the necessary maintenance information, contact your sales representative or a field engineer.

SVmco : W 02187 diskctrl internal error

Meaning:

An internal error occurred.

Corrective action:

A failure of this command or the system may have occurred.

Collect the necessary maintenance information, contact your sales representative or a field engineer.

SVmco : W 02189 diskctrl Target Device is not connected

Meaning:

The device is not connected.

Corrective action:

snmpd may have stopped.

If snmp has stopped, start it, and execute the command again.

3.3 SVmco Start/Stop Command (y30SVmco)

The y30SVmco command starts or stops SVmco.

Remarks

- This command is available only in Linux.
- The user must have root privileges to execute this command.

- SVmco is a daemon program. It starts automatically when the system boots.

(1) Syntax

```
/sbin/service y30SVmco {start | stop | status}
```

(2) Options

start | stop | status

- start: Starts SVmco.
- stop: Stops SVmco.
- status: Checks the SVmco operating status.

(3) Usage example

a. Example of starting SVmco

```
# /sbin/service y30SVmco start
```

b. Example of stopping SVmco

```
# /sbin/service y30SVmco stop
```

c. Example of checking the SVmco operating status

```
# /sbin/service y30SVmco status
```

If SVmco is already running, the following message appears.

```
SVmco is already running
```

If SVmco is stopped, the following message appears.

```
SVmco is stopped(xxxx)
```

Remarks

(xxxx) is detailed information.

(4) End status

0: Normal end

>0: Abnormal end

(5) Notes

The following message may appear when you start SVmco with the y30SVmco command. The command will be executed normally even if this message appears.

```
/bin/mknod: `/dev/watchdog': The file exists.
```

3.4 Command for Collecting SVmco Data for Investigation (getosvmco)

The getosvmco command batch-writes data for investigation, such as the following SVmco failure data, to a single compressed file:

- Installation status of application packages
- Files and modules
- Configuration files
- Internal logs
- Trace files

Remarks

The user must have root (Linux) or Administrator (Windows) privileges to execute this command. In Windows, if an operating system function (access control function) is used to execute the command with privileges other than Administrator privileges, the end status is undefined.

(1) Syntax

For output_filename, specify the full path of the destination file to which to write the compressed data for investigation.

- In Linux

```
/opt/fujitsu/SVmco/sh/getosvmco {output_filename}
```

- In Windows

```
getosvmco output_filename
```

(2) Options
None

(3) Usage example

- In Linux

  To write data for investigateion to the /tmp/dump/mco_dump.file

```
/opt/fujitsu/SVmco/getosvmco /tmp/dump/mco_dump
```

- In Windows

  To write data for investigation to the C:\temp\mco_dump.file

```
> getosvmco C:\temp\dump\mco_dump
```

(4) End status

0: Normal end

>0: Abnormal end

3.5 SNMP Security Setting Command (setsnmpsec)

The setsnmpsec command sets security for SNMP Service (by specifying the hosts from which to accept SNMP packets). If the SNMP Service security setting is [Accept SNMP packets from any hosts], you need not execute this command.

Use this command when you have changed the MMB IP address of the PSA-MMB LAN after SVmco installation on a system operating with the SNMP service security setting of [Accept SNMP packets from these hosts]. Also use the command when you have changed the SNMP service security setting from [Accept SNMP packets from any hosts] to [Accept SNMP packets from these hosts].

Remarks

- This command is available only in Windows.
- The user must have Administrator privileges to execute this command. If an operating system function (access control function) is used to execute the command with privileges other than Administrator privileges, the end status is undefined.

(1) Syntax

```
setsnmpsec
```

(2) Options

None

(3) Usage example

```
> setsnmpsec
```

(4) Output messages

- Normal end:
  SVmco : I 04200 Security setting for SNMP Service was completed.

- Abnormal end:
  SVmco : E 04201 An error occurred at the time of security setting for SNMP Service.

(5) Notes

After executing this command, restart SNMP Service.

3.6 PCI Card Operation Command (fjpciswap)

The fjpciswap command displays the physical location information (UnitName:Identifier) and DeviceName of a PCI card. With this command, you can confirm the information for the PCI card you want to replace.

Notes

- If you are using duplication or other such software, delete the configuration of the PCI card from the software before using this command. Otherwise, the operating system may stop.

- Do not stop the command while it is running. Otherwise, the following issues may arise.

  Problems that may occur when the fjpciswap command is aborted

Phenomenon	Action
Some operating system resources are not released, which results in an increased system load	Reboot the operating system

- This command cannot be used for an FC card for SAN boot connection.

- This command cannot be used for an FC card connected to a disk containing a pagefile or dump output destination.

- You cannot replace a PCI card while it is connected to a device.

Remarks

- Only Windows Server 2008 supports this command.

- The user must have Administrator privileges to execute this command. If an operating system function (access control function) is used to execute the command with privileges other than Administrator privileges, the end status is undefined.

- The prerequisite for executing this command is that SVmco and SNMP Service are running normally.

- To replace a PCI card currently being used in the system, stop its use and then disable it by using the Device Manager, before executing this command.

The procedure for disabling a device by using the Device Manager is as follows.

1. Start the Device Manager.

2. Right-click the device, and select [Disable].

(1) Syntax

```
>fjpciswap [-l|-r|-a] [UnitIdetificationName]
```

UnitIdetificationName (which specifies the identifier and slot location)

Specified names are case sensitive.

Example: IOB-PCIC#0, PCI_Box-PCIC#1, IOB#0-PCIC#1, PCI_Box#0-PCIC#1

(2) Options

[-l|-r|-a]

-l: Display

This option displays a list of PCI cards that can be replaced using the command. The following fields are displayed.

UnitName:

Displayed UnitName value (identifier). It corresponds to the [Unit] information in the [PCI Devices] window.

Func:

Function number

Device Name:

Displayed device name. It corresponds to the [Device Name] information in the [PCI Devices] window.

-r: Replacement

This option replaces the PCI card specified in [UnitIdetificationName]. The command exits when the power-off operation, replacement instruction, and device recognition process have all been completed after the replacement.

-a: Addition

This option adds the PCI card specified in [UnitIdetificationName]. The command exits when all the device adding processes are completed.

(3) Usage example

The following example shows the displaying of a list by the Display function.

Example 1

```
C:\>fjpciswap -l



Replaceable PCI cards are displayed

UnitName     Func   DeviceName

IOB#1-PCIC#5 FUNC#0 Intel(R) PRO/1000 PT Dual Port Server
Adapter

IOB#1-PCIC#5 FUNC#1 Intel(R) PRO/1000 PT Dual Port Server
Adapter #2
```

```
C:\>
```

The following example shows replaceable card specification with the Replacement function.

Example 2

```
C:\>fjpciswap -r IOB#1-PCIC#5

Selected card name is

        Intel(R) PRO/1000 PT Dual Port Server Adapter

        Intel(R) PRO/1000 PT Dual Port Server Adapter #2



Please delete all settings about this card

Do you want to remove this card?(y/n)

y ←User input
```

```
Removing the card....

The card has removed.



Please replace the card, and input "y" key.
```

When the above message appears, replace the PCI card.

Please replace the card, and input "y" key. y Adding the card..... The card has added.   C:\>

(4) Output messages

The following messages appear for this CLI command.

SVmco : E 08740 this command can not execute doubly :%s
SVmco : E 08741 this command needs Administrators privilege :%s
SVmco : E 08742 invalid option :%s
SVmco : E 08743 option num is invalid :%s
SVmco : E 08744 no unit id :%s
SVmco : E 08745 internal error :%s
SVmco : E 08746 can not make event file :%s
SVmco : E 08748 no resource :%s
SVmco : E 08751 command timeout(WMI) :%s

SVmco : E 08752 configuration file error :%s
SVmco : E 08753 This card cannot be removed :%s
SVmco : E 08754 can not get snmp information :%s
SVmco : E 08755 no card :%s
SVmco : E 08756 internal error(ipmi) :%s
SVmco : E 08757 this command can not execute during refresh :%s
SVmco : E 08758 this unit is occupied :%s
SVmco : E 08759 command timeout(SNMP) :%s

(5) Message Details

SVmco : E 08740 this command can not execute doubly :%s

Meaning:

This command cannot be executed twice at the same time.

Corrective action:

Confirm that this command is not being executed elsewhere. Execute the command again after it is completed. This command cannot be executed twice at the same time.

SVmco : E 08741 this command needs Administrators privilege :%s

Meaning:

Administrator privileges are required for executing this command.

Corrective action:

Execute the command on a console as a user with Administrator privileges.

SVmco : E 08742 invalid option :%s

Meaning:

The specified option is invalid.

Corrective action:

Specify the correct option. Execute it. The options are case-sensitive.

For details on the options of the PCI card control command (fjpciswap), see 3.6 PCI Card Operation Command (fjpciswap).

SVmco : E 08743 option num is invalid :%s

Meaning:

The number of options is invalid.

Corrective action:

Specify the correct option. Execute it.

For details on the options of the PCI card control command (fjpciswap), see 3.6 PCI Card Operation Command (fjpciswap) .

SVmco : E 08744 no unit id :%s

Meaning:

The specified unit name does not exist in the partition.

Corrective action:

Specify the unit name that exists in the partition.

SVmco : E 08745 internal error :%s

Meaning:

An internal error occurred.

Corrective action:

Perform recovery of the PCI card status. For details on recovery of the PCI card status, see ■Recovery of the PCI card status.

After doing so, if the same message appears, contact your sales representative or a field engineer.

SVmco : E 08746 can not make event file :%s

Meaning:

Creation of a file for event notification failed.

Corrective action:

Allocate the disk capacity.

After doing so, if the same message appears, contact your sales representative or a field engineer.

SVmco : E 08748 no resource :%s

Meaning:

Acquisition of resources, such as memory, failed.

Corrective action:

Check whether there are sufficient operating system resources. If there is no problem with operating system resources, contact your sales representative or a field engineer.

SVmco : E 08751 command timeout(WMI) :%s

Meaning:

A command time-out occurred because of a WMI error.

Corrective action:

1. Check the operation of the "Windows Management Instrumentation" (WMI) service. If it has not been started, start it.

2. Perform recovery of the PCI card status.

   For details on recovery of the PCI card status, see ■Recovery of the PCI card status.

3. If you cannot place the PCI card in the anticipated status, contact your sales representative or a field engineer.

SVmco : E 08752 configuration file error :%s

Meaning:

A configuration file error occurred.

Corrective action:

Contact your sales representative or a field engineer.

SVmco : E 08753 This card cannot be removed :%s

Meaning:

A card that does not support replacement was selected as the replacement target.

Corrective action:

Select a card that supports replacement, as the replacement target.

SVmco : E 08754 can not get snmp information :%s

Meaning:

The information cannot be retrieved from SNMP.

Corrective action:

1. Check the operation of SNMP Service. If it has not been started, start it.
2. After doing so, if the same message appears, restart SVmco. For details on how to start SVmco, see *2 in 3.1 CLI command list.
3. After doing so, if the same message appears, contact your sales representative or a field engineer.

SVmco : E 08755 no card :%s

Meaning:

No card is mounted in the specified slot.

Corrective action:

Confirm the location of the slot where the card is mounted. Then, execute the add operation.

SVmco : E 08756 internal error(ipmi) :%s

Meaning:

An internal error occurred.

Corrective action:

Perform recovery of the PCI card status. For details on recovery of the PCI card status, see ■Recovery of the PCI card status.

After doing so, if the same message appears, contact your sales representative or a field engineer.

SVmco : E 08757 this command can not execute during refresh :%s

Meaning:

The card cannot be updated because the SVmco information update process is in progress.

Corrective action:

If 30 minutes have not passed since operating system startup, wait for that time to pass, and then try again.

If 30 minutes have passed since operating system startup, wait at least one minute, and then try again.

SVmco : E 08758 this unit is occupied :%s

Meaning:

An attempt was made to add a card to a slot that already has another card mounted.

Corrective action:

Confirm the location of the slot in which to add a card. Then, execute the add operation.

SVmco : E 08759 command timeout(SNMP) :%s

Meaning:

A command time-out occurred because of a SVmco or SNMP error.

Corrective action:

Check the operation of SVmco and SNMP Service. If they have not been started, start them.

After doing so, if the same message appears, perform recovery of the PCI card status. For details on recovery of the PCI card status, see ■ Recovery of the PCI card status.

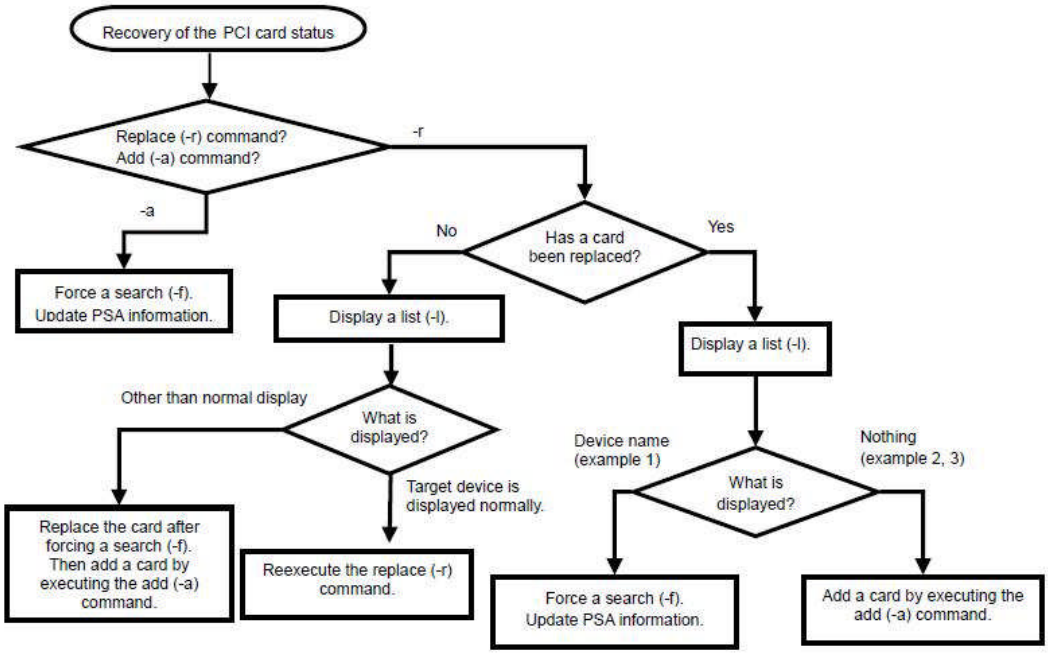
After doing so, if the same message appears, contact your sales representative or a field engineer.

■ Recovery of the PCI card status

If a command terminates with an error message during the PCI Hot Plug procedure, or normal operation cannot be restored after replacement of a PCI card, use the following procedure.

Note

Perform this procedure only after taking corrective action for the error message. However, recovery may be possible even if corrective action cannot be taken. If normal operation cannot be restored using this procedure, contact a Fujitsu certified field engineer.



Recovery of the PCI card status

(1) Example of a case in which identifiers do not appear in the displayed list

```
C:\>fjpciswap -l


Replaceable PCI cards are displayed

UnitName Func DeviceName

- - Emulex LightPulse LPe1250-F8, PCI Slot 4, Storport

Miniport Driver

- - Intel(R) PRO/1000 PT Dual Port Server Adapter #1

- - Intel(R) PRO/1000 PT Dual Port Server Adapter #2

- - Intel(R) PRO/1000 PT Dual Port Server Adapter #3

- - Intel(R) PRO/1000 PT Dual Port Server Adapter #4


C:\>
```

(2) Example of a case in which PCI card information does not appear in the displayed list

This example includes cases in which only the control target PCI card does not appear. If a PCI card has not been replaced, execute the Add command after replacing the card.

```
C:\>fjpciswap -l


Replaceable PCI cards are displayed

Unit Name          Func      Device Name
```

```
there are no removable pci card


C:\>
```

(3) Example of a case in which the relevant PCI card (IOB#1-PCIC#4-FUNC#0) information does not appear in the displayed list

```
C:\>fjpciswap -l


Replaceable PCI cards are displayed

UnitName        Func     DeviceName

IOB#1-PCIC#5   FUNC#0   Intel(R) PRO/1000 PT Dual Port Server Adapter #1

IOB#1-PCIC#5   FUNC#1   Intel(R) PRO/1000 PT Dual Port Server Adapter #2

IOB#1-PCIC#7   FUNC#0   Intel(R) PRO/1000 PT Dual Port Server Adapter #3

IOB#1-PCIC#7   FUNC#1   Intel(R) PRO/1000 PT Dual Port Server Adapter #4


C:\>
```

3.7 Firewall Setting Command for the Management LAN Interface (setmlanfw.sh)

The setmlanfw.sh command is a tool that supports the opening of the necessary ports when the system has a firewall configured for the management LAN interface and the system provides PRIMECLUSTER linkage through the management LAN network.

This command opens the following ports for the specified IP addresses:

- snmptrap port: udp/162
- rmcp+ port: udp/7000 to 7100

Note

If you need to change the firewall configuration, such as because of a change to the IP address of the management LAN interface, delete the firewall configuration according to the deletion procedure and then perform the configuration procedure again.

Remarks

- This command is available only in Linux.
- The user must have root privileges to execute this command.
- Use the following procedure to execute this command.

(1) Syntax

For config_file, specify the file that contains the IP addresses of the ports to open.

```
/opt/fujitsu/SVmco/sh/setmlanfw.sh {config_file}
```

(2) Options

None

(3) Usage example

For config_file, specify /tmp/config.txt, which contains the IP addresses of the ports to open.

```
# /opt/fujitsu/SVmco/shsetmlanfw.sh /tmp/config.txt
```

(4) Output messages

The following messages appear for this CLI command.

Too few or more argument
Cannot read the file : %s
No IP setting or illegal IP format in /etc/fujitsu/SVmco/usr/ipsetup.conf
No IP setting in %s

Already set iptables
The setting was completed

Remarks

In addition to the above messages, the CLI displays messages to confirm the settings.

(4) Message Details

Too few or more argument

Meaning:

The number of options is invalid.

Corrective action:

The configuration file must be specified to execute the command. Specify the configuration file. Then, reexecute the command.

Cannot read the file : %s

Meaning:

A file required for execution could not be found.

Corrective action:

The file indicated in the message could not be found. Confirm that the file exists. Then, reexecute the command.

No IP setting or illegal IP format in /etc/fujitsu/SVmco/usr/ipsetup.conf

Meaning:

The IP address of the management LAN is not set in the SVmco operation file /etc/fujitsu/SVmco/usr/ipsetup.conf. Alternatively, the format of the IP address is incorrect.

Corrective action:

Referring to 2.1.5 Setting the management LAN IP address , set the IP address of the management LAN. Reexecute the command.

No IP setting in %s

Meaning:

The setting could not be found in the file indicated in the message.

Corrective action:

- If %s is /etc/fujitsu/SVmco/usr/ipsetup.conf:

Referring to 2.1.5 Setting the management LAN IP address, set the IP address of the management LAN. Reexecute the command.

- If %s is other than the above:

Set the IP address in the file indicated in the message. Reexecute the command.

Already set iptables

Meaning:

It is already set.

Corrective action:

Confirm iptables -L -n. If there is no problem with the setting, no action is necessary.

If the setting is no longer correct or is defective, delete the setting. Reexecute the command.

The setting was completed

Meaning:

The setting was completed.

Corrective action:

No action is necessary.

(5) End status

0: Normal end

>0: Abnormal end

(6) Configuration procedure

Configure the interface for the management LAN before executing this command.

1. Specify the IP address of the management LAN interface in the SVmco configuration file (/etc/fujitsu/SVmco/usr/ipsetup.conf).

For details on setting the IP address of the management LAN interface, see 2.1.5 Setting the management LAN IP address.

Configuration example/etc/fujitsu/SVmco/usr/ipsetup.conf

```
[NETWORK]

ManagementIP=192.168.0.1
```

2. Prepare a configuration file that contains the IP addresses of the ports to open.

   In the configuration file, specify the physical IP addresses of the MMBs (MMB physical IP addresses <MMB#0/MMB#1>) that belong to any of the cluster nodes defined in PRIMECLUSTER. Alternatively, specify the network IP address that includes the aforementioned MMB physical IP addresses, following the line that contains "[PCL]" only. Each line in the file should contain only one entry.

   Configuration example/tmp/config.txt

```
[PCL]

192.168.0.0/24

192.168.1.5
```

Remarks

A sample configuration file is available at:

/opt/fujitsu/SVmco/sh/sample_conf_setmlanfw.txt

3. Execute setmlanfw.sh with the configuration file prepared in step 2 specified.

   After you execute this command, messages to confirm the settings made in step 1 and step 2 appear. Enter "Y" to accept the settings or "N" to edit the settings.

   Then, proceed to the next process.

   Execution example Specifying the configuration file prepared in step 2

```
# /opt/fujitsu/SVmco/sh/setmlanfw.sh /tmp/config.txt

Management LAN IP address:

192.168.0.1



Source IPs for PRIMECLUSTER Service:

192.168.0.0/24

192.168.1.5



Press "Y" to confirm above settings, "N" to cancel all settings

> Y

The setting was completed
```

4. Execute the iptables -L -n command to confirm that the configuration chain "MMLAN" exists.

Executing the setmlanfw.sh command creates the configuration chain "MMLAN," which is referenced by the INPUT and OUTPUT chains.

Execution example

```
# iptables -L -n

Chain INPUT (policy DROP)

target  prot opt source     destination

MMLAN   all  -- 0.0.0.0/0    0.0.0.0/0



Chain FORWARD (policy DROP)

target   prot opt source    destination



Chain OUTPUT (policy DROP)

target   prot opt source    destination

MMLAN   all -- 0.0.0.0/0   0.0.0.0/0



Chain MMLAN (2 references)

target  prot opt source     destination

ACCEPT  udp  -- 192.168.0.0/24  192.168.0.1   udp
dpts:7000:7100

ACCEPT  udp  -- 192.168.0.1   192.168.0.0/24 udp
spts:7000:7100
```

```
ACCEPT  udp  -- 192.168.0.0/24 192.168.0.1   udp dpt:162

ACCEPT  udp  -- 192.168.0.1   192.168.0.0/24 udp spt:162

ACCEPT  udp  -- 192.168.1.5   192.168.0.1   udp dpts:7000:7100

ACCEPT  udp  -- 192.168.0.1   192.168.1.5   udp spts:7000:7100

ACCEPT  udp  -- 192.168.1.5   192.168.0.1   udp dpt:162

ACCEPT  udp  -- 192.168.0.1   192.168.1.5   udp spt:162
```

(7) Configuration deletion procedure

To change part of the firewall configuration, such as the IP address of the management LAN interface, first delete the configuration.

After deleting it, reconfigure the firewall.

1. Execute iptables -L -n to confirm that the configuration chain "MMLAN" exists.

   If it does not exist, the following steps are not necessary.

2. Delete the references to MMLAN from the INPUT and OUTPUT chains.

   Execution example

```
# iptables -D INPUT -j MMLAN

# iptables -D OUTPUT -j MMLAN
```

3. Delete the settings in the configuration chain "MMLAN."

Execution example

```
# iptables -F MMLAN
```

4. Delete the configuration chain "MMLAN."

Execution example

```
# iptables -X MMLAN
```

3.8 PSA-MMB Communication LAN Setting Command (setpsalan)

The setpsalan command sets the PSA-MMB communication LAN.

You need to execute this command after installing SVmco. Before executing this command, restart the operating system.

Executing this command sets the PSA-MMB communication LAN as follows.

- IP address

  172.30.0.<partition ID + 2>/24

  Example) When the partition ID is 2

  172.30.0.4/24

- Communication settings

  Auto Negotiation: off

  Speed: 100 Mbps

  Duplex: full

Remarks

- This command is available only in Windows.
- The user must have Administrator privileges to execute this command. If an operating system function (access control function) is used to execute the command with privileges other than Administrator privileges, the end status is undefined.

(1) Syntax

```
setpsalan
```

(2) Options

None

(3) Usage example

```
> setpsalan
```

(4) End status

0: Normal end

>0: Abnormal end

(5) Notes

Before executing this command, restart the operating system after installing SVmco.

4. Hot Replacement of Hard Disks

This chapter describes hot replacement of hard disks. This operation is supported only in Red Hat.

However, the tasks described in 4.3 Replacing Hard Disks in a Hardware RAID Configuration are also supported in Windows.

4.1 Overview of Hard Disk Hot Replacement

SVmco has helpful functions for hot replacement of hard disks in partitions. If you conclude a system maintenance agreement, a certified service engineer will be responsible for replacing the hard disks.

SVmco provides functions that control disk LEDs and display the disk status when a hardware failure is detected, a disk is replaced, or a disk is added.

Notes

- This operation does not apply to RAID devices. For details on how to replace a hard disk of an array controller card, see 4.3 Replacing Hard Disks in a Hardware RAID Configuration.
- VMware does not support hot replacement of hard disks.

- The following message may appear for a mounted hard disk. It does not indicate any operational problem.

  ```
  kernel: mptscsih: ioc0: >> Attempting bus reset!(sc=e000004082adc480)

  kernel: mptbase: ioc0: IOCStatus(0x0048): SCSI Task Terminated
  ```

- After mounting a hard disk, you may need to pause the disk rotation to mount it on another slot. If so, wait about 60 seconds after you mounted the disk, before stopping the disk rotation. The operating system executes the Hot Plug process when the disk is mounted. Therefore, if you immediately stop the disk rotation, the following error may occur.

  ```
  kernel: Device sdb not ready.

  kernel: end_request: I/O error, dev sdb, sector 204706

  kernel: Buffer I/O error on device sdb1, logical block 6396
  ```

- Before executing a disk management command, confirm that no other instance of the command is being executed.

- You can perform the following operations with the disk management command. For details, see 4.2 Disk Management Command (diskctrl) in the *PRIMEQUEST 1000 Series Tool Reference* (C122-E110EN).

  - Displaying a list of SGPIO and SES controllers or a list of hard disks managed by the controllers

  - Turning off a hard disk location LED or causing it to blink

- Delete the configuration information cache file of the file system (Red Hat Enterprise Linux 5).

  After hot replacement, addition, or removal of a hard disk, execute the following command to delete the

configuration information cache file of the file system. Likewise, delete the file before static replacement, addition, or removal of a hard disk.

```
# rm /etc/blkid/blkid.tab
```

If the cache file exists with /etc/blkid/blkid.tab retaining the file system configuration, Red Hat Enterprise Linux uses the information in the file as it checks the file system with the fsck command.

The system status will not match the /etc/blkid/blkid.tab contents during hot replacement, hot addition, or hot removal of disks. For this reason, the check at the next execution of the fsck command will be incorrect, which may damage the file system.

Once created, this file is not updated. That is why the cache file must be deleted after hot replacement, addition, or removal of a hard disk as well as before static replacement, addition, or removal of a hard disk.

Deleting the cache file does not cause any problems because it will be re-created as needed.

- Stop the smartd service (Red Hat Enterprise Linux 5).

During hot maintenance of a hard disk (hot replacement, addition, or removal), stop the smartd service.

The smartd service is intended to monitor a hard disk by using the self-diagnosis function of the hard disk, S.M.A.R.T. (Self-Monitoring, Analysis and Reporting Technology System).

The smartd service does not support the hot maintenance of a hard disk, so that the hard disk information acquired at the start of the smartd service will not match the hard disk information after the hot maintenance. Consequently, it will output the following message every 30 minutes.

```
smartd[XXXXX]: Device: /dev/YYY, No such device, open()
failed
```

XXXXX and YYY: These parts vary with the environment.

That is why if the smartd service is used, the smartd service must be stopped before hot maintenance of a hard disk and the smartd service must be restarted with the latest hard disk status after hot maintenance.

The procedure is as follows.

1. Before hot maintenance of a hard disk, stop the smartd service.

   The running condition of the smartd service can be checked from the output result of the following operation.

   Example: Output results when the smartd service is running

   ```
   # /sbin/service smartd status

   smartd (pid XXXXX) is running...
   ```

   XXXXX: This part varies with the environment.

   If the smartd service has been started, stop it by using the following operation.

   ```
   # /sbin/service smartd stop
   ```

2. Execute hot maintenance of a hard disk, and complete it.

3. Start the smartd service.

   After stopping the smartd service in step 1, you will need to restart it after the hot maintenance of a hard disk is completed.

   Start the smartd service by using the following operation.

```
# /sbin/service smartd start
```

- When the system contains the SAS disk unit and is running with the driver for SAS cards, which is provided as standard by Red Hat Enterprise Linux 5 (Fusion MPT SAS Driver), hot replacement and hot removal are not available.

  This does not cause a problem for systems that contain the SAS array disk unit.

  The schedule for solving this problem is pending.

4．2．Adding, Removing, and Replacing Hard Disks

This section describes procedures using the disk management command to add, remove, and replace hard disks. These descriptions use a SASU internal hard disk as an example. In the device names displayed by the disk management command, iocx represents a SGPIO controller, and /dev/sdx represents a hard disk.

４．２．１．**Addition procedure**

Add a hard disk by using the following procedure.

1. Insert the hard disk into an empty SASU slot.

2. Confirm the location of the inserted hard disk by displaying the status with the disk management command.

```
# /opt/fujitsu/SVmco/bin/diskctrl -l

 ioc0

   0 /dev/sda       Fault LED-Off

   1 /dev/sdb       Fault LED-Off

   3 /dev/sdc       Fault LED-Off

   4 /dev/sdd       Fault LED-Off
```

Shortly after you insert the hard disk, the disk becomes accessible. Identify the slot that has the inserted hard disk in the next step.

3. Cause the Fault LED to blink by executing the location display function of the disk management command.

```
# /opt/fujitsu/SVmco/bin/diskctrl  -i ioc0/1
```

4. Check whether the Fault LED of the slot that has the inserted hard disk is blinking.

When the slot location is correct, confirm that "Fault LED-Identify" is displayed for the slot by the status display function of the disk management command.

```
# /opt/fujitsu/SVmco/bin/diskctrl -l

ioc0

0 none

1 none  Fault LED-Identify
```

Remarks

o If the slot location is incorrect in step 4:

Turn off the blinking Fault LED by executing the location off function of the disk management command.

```
# /opt/fujitsu/SVmco/bin/diskctrl -o ioc0/1
```

Repeat steps 3 and 4 by specifying other slots until the correct slot location is confirmed.

4.2.2. Removal procedure

Remove the hard disk by using the following procedure.

1. To remove a hard disk containing a partition specified as a raw or swap device, take action as follows.

- If the hard disk contains a raw device:
  If the hard disk to be removed contains a partition operating as a raw device, terminate all the applications that may access this partition as the raw device. Then, remove the hard disk.

- If the hard disk contains a swap device:
  If the hard disk to be removed contains a partition specified as a swap device, stop the system. Then, replace the hard disk.

2. Take action as follows. The action depends on whether the hard disk to be removed has the Mirror configuration in PRIMECLUSTER GDS.

   - If the hard disk to be removed has the Mirror configuration in PRIMECLUSTER GDS:
     From PRIMECLUSTER GDS, select the disk to be removed, and remove it. For details on the removal procedure, see the PRIMECLUSTER GDS manual.

   - If the hard disk to be removed does not have the Mirror configuration in PRIMECLUSTER GDS:
     Unmount all the disk partitions mounted on the disk to be removed.

```
# umount  /dev/sdc1

# umount  /dev/sdc2

                .

                .

                .
```

Remarks

You need not unmount any partition operating as a raw or swap device. However, the removal of devices requires changes to the raw and swap device settings.

3. Use the disk management command to stop the disk rotation.

Execute the disk management command to perform the following processes.

- o Stop the disk rotation. The Fault LED (amber) goes on.
- o Instruct the operating system to remove the target disk.

```
# /opt/fujitsu/SVmco/bin/diskctrl -e /dev/sdc
```

4. Remove the hard disk at the location indicated by the Fault LED (amber) that is on. When an internal hard disk is removed, the Fault LED behind its slot goes on. The Fault LED goes on or blinks until it is turned off by the disk management command or the partition is powered off or rebooted.

Note

If there is an SSD, removing the SSD may output the W13139 message from SVagent to the system event log.

To turn off the Fault LED with the disk management command, perform the following operations.

1) Display the status by executing the disk management command, and confirm the location with the Fault LED that is on.

```
# /opt/fujitsu/SVmco/bin/diskctrl -l ioc0
  0 /dev/sda       Fault LED-Off
  1 /dev/sdb       Fault LED-Off
  2 none          Fault LED-On
  3 /dev/sdd       Fault LED-Off
```

From the above example, you can confirm that the Fault LED of slot 2 of ioc0 is on, so sdc was surveyed in that slot.

2) Turn off the Fault LED by executing the following disk management command.

```
# /opt/fujitsu/SVmco/bin/diskctrl -o ioc0/2
```

The Fault LED goes out.

Display the status by executing the disk management command.

You can confirm that "none" is displayed as the device name of slot 2 of ioc0 and the slot is empty.

```
# /opt/fujitsu/SVmco/bin/diskctrl -l
 ioc0
  0 /dev/sda       Fault LED-Off
  1 /dev/sdb       Fault LED-Off
  2 none
```

3 /dev/sdd	Fault LED-Off

4．2．3．Replacement procedure (for hard disk failures not causing non-responsiveness)

If a hard disk fails or is predicted to fail by S.M.A.R.T. proactive detection, replace the hard disk by using the following procedure.

1. To replace a hard disk containing a partition specified as a raw or swap device, take action as follows.

   - If the hard disk contains a raw device:
     If the hard disk to be replaced contains a partition operating as a raw device, terminate all the applications that may access this partition as the raw device. Then, replace the hard disk.

   - If the hard disk contains a swap device:
     The target hard disk contains a partition specified as a swap device. Stop the system. Then, replace the hard disk.

2. Take action as follows. The action depends on whether the target hard disk has the Mirror configuration in PRIMECLUSTER GDS.

   - In the Mirror configuration in PRIMECLUSTER GDS:
     From PRIMECLUSTER GDS, select the disk to be removed, and remove it. For details on the removal procedure, see the PRIMECLUSTER GDS manual.

- Not in the Mirror configuration in PRIMECLUSTER GDS:
  Unmount all the disk partitions mounted on the disk to be replaced.

```
# umount  /dev/sdc1

# umount  /dev/sdc2

                .

                .

                .
```

Remarks

You need not unmount any partition operating as a raw or swap device.

3. Use the disk management command to stop the disk rotation.

   Execute the disk management command to perform the following processes.

   - Stop the disk rotation. The Fault LED (amber) goes on
   - Instruct the operating system to remove the target disk.

```
# /opt/fujitsu/SVmco/bin/diskctrl -e /dev/sdc
```

   Remove the hard disk at the location indicated by the Fault LED (amber) that is on.

4. Display the status by executing the disk management command, and confirm the location with the Fault LED that is on.

```
# /opt/fujitsu/SVmco/bin/diskctrl -l

 ioc0

   0 /dev/sda       Fault LED-Off

   1 /dev/sdb       Fault LED-Off

   2 --mount        Fault LED-On

   3 /dev/sdd       Fault LED-Off
```

5. Replace the disk.

   You can confirm that the hard disk is inserted into slot 2 of ioc0 because the Fault LED is on in that slot.

   Turn off the Fault LED by executing the following disk management command.

```
# /opt/fujitsu/SVmco/bin/diskctrl -c ioc0/2
```

Note

If there is an SSD, removing the SSD may output the W13139 message from SVagent to the system event log.

Confirm the location of the inserted hard disk by displaying the status with the disk management command.

```
# /opt/fujitsu/SVmco/bin/diskctrl -l

 ioc0
```

0 /dev/sda	Fault LED-Off
1 /dev/sdb	Fault LED-Off
2 /dev/sdc	Fault LED-Off
3 /dev/sdd	Fault LED-Off

6. After the disk management command is completed, mount the disk partitions. If the disk has the Mirror configuration in PRIMECLUSTER GDS, incorporate it in PRIMECLUSTER GDS.

7. To restore each raw device, take action as follows.

   - If the hard disk had contained a raw device:

     Configure the raw device according to the manual of the application used for raw access to the replacement hard disk. That application was stopped before the replacement. After completing the configuration, restart the application.

4.2.4. Replacement procedure (for hard disk failures causing non-responsiveness)

If HDD recovery using an HDD driver is not possible because a hard disk failure caused the relevant HDD to hang, replace the hard disk by using the following procedure.

1. If the system is non-responsive because of a hard disk failure, the following message detected by SVagent appears and the Fault LED of the hard disk goes on:

   For RHEL5:

```
Serverview: E 14134 IOB#n-HDD#n scsi:%h:%c:%i:%l \

Device error (offlined) vendor=xxxxxxxx \

model=xxxxxxxx serial-no=xxxxxxxxxx \

SCSI number: %h=host number, %c=channel number, \

%i=id number, %l=lun number
```

   The \ at the end of a line indicates that there is no line feed.

2. Confirm the status by executing the disk management command. At this time, the disk whose Fault LED is on is the disk (*) where the offline error occurred.

   o RHEL5:

   SASU internal disk

```
# /opt/fujitsu/SVmco/bin/diskctrl –l ioc0

    0  /dev/sda  Fault LED-Off

    1  /dev/sdb  Fault LED-Off

    2  --mount   Fault LED-On      <- (*)

    3  /dev/sdd  Fault LED-Off
```

3. To replace a hard disk containing a partition specified as a raw or swap device, take action as follows.

   - If the hard disk contains a raw device:
     If the hard disk to be replaced contains a partition operating as a raw device, terminate all the applications that may access this partition as the raw device. Then, replace the hard disk.

   - If the hard disk contains a swap device:
     The target hard disk contains a partition specified as a swap device. Stop the system. Then, replace the hard disk.

4. Take action as follows. The action depends on whether the target hard disk has the Mirror configuration in PRIMECLUSTER GDS.

   - In the Mirror configuration in PRIMECLUSTER GDS:
     From PRIMECLUSTER GDS, select the disk to be removed, and remove it. For details on the removal procedure, see the PRIMECLUSTER GDS manual.

   - Not in the Mirror configuration in PRIMECLUSTER GDS:
     Unmount all the disk partitions mounted on the disk to be replaced.

```
# umount  /dev/sdc1

# umount  /dev/sdc2

                .

                .

                .
```

Remarks

You need not unmount any partition operating as a raw or swap device.

5. Use the disk management command to stop the disk rotation. Stop the disk rotation by specifying the slot confirmed in step 3.

```
# /opt/fujitsu/SVmco/bin/diskctrl -e ioc0/2
```

6. Replace the hard disk at the location indicated by the Fault LED (amber) that is on.

7. From the above example, you can confirm that the Fault LED of slot 2 of ioc0 is on, so the inserted hard disk is in that slot.

   Turn off the Fault LED by executing the following disk management command.

```
# /opt/fujitsu/SVmco/bin/diskctrl -c ioc0/2
```

8. Confirm the location of the inserted hard disk by displaying the status with the disk management command.

```
# /opt/fujitsu/SVmco/bin/diskctrl -l

ioc0

        0   /dev/sda    Fault LED-Off

        1   /dev/sdb    Fault LED-Off

        2   /dev/sdc    Fault LED-Off
```

```
    3   /dev/sdd    Fault LED-Off
```

9. After the disk management command is completed, mount the disk partitions. If the disk has the Mirror configuration in PRIMECLUSTER GDS, incorporate it in PRIMECLUSTER GDS.

10. To restore each raw device, take action as follows.

    - If the hard disk had contained a raw device:
      Configure the raw device according to the manual of the application used for raw access to the replacement hard disk. That application was stopped before the replacement. After completing the configuration, restart the application.

4.3. Replacing Hard Disks in a Hardware RAID Configuration

This section describes how to replace hard disks in a Hardware RAID configuration. Monitor HardRAID with ServerView RAID. For details on how to replace hard disks in a Hardware RAID configuration, see the *MegaRAID SAS User's Guide.*

4.3.1. Hot replacement of a faulty hard disk

This section describes the workflow for replacing a faulty hard disk.

1. Start ServerView RAID Manager.

2. In the ServerView RAID Manager tree view, confirm the mounting location of the faulty hard disk.

   * A field engineer performs steps 4 to 6 as the hard disk recovery procedure.

3. Confirm that the Alarm LED of the hard disk on the main unit of the server is on.

4. Replace the hard disk whose Alarm LED is on.

5. In the SVOM Web-UI, open the window for the partition. Select [Driver Monitor] from the left menu. The window displays "Error" or "Warning" at [Status] for the array controller card that manages the faulty hard disk. Select the card. Then, click the [Acknoledge] button.

6. After replacing the hard disk, confirm that hard disk replacement was completed properly, by using the following steps depending on whether the disk is a spare disk.

   - If not set as a spare disk:
     ServerView RAID Manager automatically performs a rebuild. Then, the Alarm LED of the hard disk starts blinking. Wait until the rebuild is complete in the ServerView RAID

Manager window. Confirm that [Status] for the hard disk is [Operational].

- If set as a spare disk:
  The replacement hard disk automatically becomes a spare disk. Then, the Alarm LED of the hard disk goes out.
  In the [ServerView RAID Manager] window, confirm that [Status] for the hard disk is [Global Hot Spare] or [Dedicated Hot Spare]. After the rebuild is complete, a copyback operation may be performed.

7. Exit ServerView RAID Manager.

4．3．2．Hard disk preventive replacement

This section describes the workflow for preventive replacement of a hard disk S.M.A.R.T predicted to fail.

For the RAID 0 configuration (cold-partition replacement)

To replace a hard disk in the RAID 0 configuration, apply cold-partition maintenance.

The workflow is described below.

1. Back up data in all the hard disks under the array controller card that are subject to preventive replacement.

2. Start ServerView RAID Manager.

3. In ServerView RAID Manager, confirm the mounting location by selecting the hard disk that S.M.A.R.T. predicted to fail.

4. Check whether other hard disks are faulty. If a hard disk is faulty, replace it.

5. Restart the partition. Then, start WebBIOS from the [BIOS] window.

6. In WebBIOS, select the array controller card connected to the hard disk subject to preventive replacement. Then, execute [Clear Configuration] to erase the data on the hard disk.

7. When the data has been erased, exit WebBIOS and power off the partition.

   * A field engineer performs step 7 as the hard disk recovery procedure.

8. Replace the hard disk that S.M.A.R.T. predicted to fail.

9. Start the partition. Then, start WebBIOS from the [BIOS] window.

10. In WebBIOS, create an array configuration.

11. Restore backup data or reinstall the operating system.

For the RAID 1, RAID 1E, RAID 5, RAID 6, or RAID 10 configuration (hot replacement)

Hot replacement is applicable to hard disks in the RAID 1, RAID 1E, RAID 5, RAID 6, and RAID 10 configurations. The workflow is described below.

1. Start ServerView RAID Manager.

2. In ServerView RAID Manager, confirm the mounting location by selecting the hard disk that S.M.A.R.T. predicted to fail.

3. Check whether other hard disks are faulty. If a hard disk is faulty, replace it.

4. Ensure consistency to make the hard disks error-free.

5. In the tree view, select the hard disk that S.M.A.R.T. predicted to fail. Confirm that [Status] is [SMART Error].

6. With the hard disk selected in the tree view, select [Locate device] from the right-click menu to cause the Alarm LED to blink at high speed (interval of 0.3 seconds).

7. Confirm the hard disk location. Then, with the hard disk selected in the tree view, select [Stop location] from the right-click menu to turn off the Alarm LED.

8. With the hard disk selected in the tree view, select [Make Offline] from the right-click menu to turn on the Alarm LED.

9. Confirm that [Status] for the target hard disk is [Failed], [Offline], or [Available].

   * A field engineer performs steps 10 to 12 as the hard disk recovery procedure.

10. Confirm that the Alarm LED of the hard disk on the main unit of the server is on.

11. Replace the hard disk whose Alarm LED is on.

12. In the SVOM Web-UI, open the window for the partition. Select [Driver Monitor] from the left menu. The window displays "Error" or "Warning" at [Status] for the array controller card that manages the faulty hard disk. Select the card. Then, click the [Acknowledge] button.

13. After replacing the hard disk, confirm that hard disk replacement was completed properly, by using the following steps depending on whether the disk is a spare disk.

    - If not set as a spare disk:
      ServerView RAID Manager automatically performs a rebuild. Then, the Alarm LED of the hard disk starts blinking.
      Wait until the rebuild is complete in the ServerView RAID Manager window. Confirm that [Status] for the hard disk is [Operational].

    - If set as a spare disk:
      The replacement hard disk automatically becomes a spare disk. Then, the Alarm LED of the hard disk goes out.
      In the [ServerView RAID Manager] window, confirm that [Status] for the hard disk is [Global Hot Spare] or [Dedicated Hot Spare]. After the rebuild is complete, a copyback operation may be performed.

14. Exit ServerView RAID Manager.

4.3.3. Hard Disk Replacement at Multiple Deadlock Occurrence

Multiple deadlock occurs when more than one hard disk fail to be recognized at the same time.

When multiple deadlock occurs, replace the SAS interface components (array controller card, SASU, etc.) and the hard disk. Since system data is not guaranteed when this type of failure occurs, reconfigure the hardware RAID. This executes the corrective measure of recovering the data after backing it up.

When replacing the SAS interface components and the hard disk, the partition is stopped for maintenance. The workflow is described below.

Remarks

A field engineer performs the following step 2 only.

1. Turn off the power to the partition.
2. Replace the SAS interface components and hard disk.
3. Restart the partition., and then start WebBIOS from the BIOS screen.
4. Create the array configuration with WebBIOS.
5. Restore the data for backup.

5. PCI Card Hot Maintenance in Windows

This chapter describes the hot plugging procedure for PCI cards in Windows. Hot plugging is supported only in Windows Server 2008.

5. 1. Overview of Hot Maintenance

The hot plugging procedure includes the common steps for all PCI cards and the additional steps required for a card function or driver. This section describes both the operations required for all cards and the operations required for combinations with a specific card and specific software.

Overview of hot plugging

You can add and replace cards by using the hot plugging supported by Windows Server 2008. This chapter describes the operating system commands required for card replacement, together with the actual hardware operations. For details on the overall flow, see 5.1.1 Overall flow.

Common hot plugging procedure for PCI cards

This chapter concretely describes the required tasks in the common replacement procedure for all PCI cards. For details on the common

hot plugging procedure for PCI cards, see 5.2 Common Hot Plugging Procedures for PCI Cards.

Hot plugging procedure for each type of card

This chapter describes procedures with the required additional steps for certain cards. The section contain procedures for NICs (network cards) and FC cards (Fibre Channel cards). For details on NIC hot plugging, see 5.3 NIC Hot Plugging. For details on FC card hot plugging, see 7.5 FC Card Hot Plugging.

For the respective procedures required for cards other than the above cards, see the related hardware and software manuals as well as this chapter. Usually, these cards (NICs and FC cards) are used in a combination with duplication software (Intel PROSET/ETERNUS multipath driver). This chapter describes the procedure needed for a NIC or FC card used in combination with such duplication software, and the procedure needed for a NIC or FC card used alone.

Note

The procedures include operations for related software. Depending on the configuration, the procedures may differ or require additional operations. When doing the actual work, be sure to see the related product manuals.

5.1.1 Overall flow

This section shows the overall flow of hot plugging.

The following procedures are required for all types of cards for PCI Hot Plug support in the current version of Windows Server 2008. If an operation is required for a specific type of PCI card, the operation is described in the relevant procedure. The contents of an operation depend on the software to be combined with the card.

For details on the fjpciswap command, see 3.6 PCI Card Operation Command (fjpciswap).

Replacement procedure

1. Confirm the physical location by using the display function of the fjpciswap command.

2. Replace the PCI card by using the swap function of the fjpciswap command.

3. Confirm the replacement card by using the display function of the fjpciswap command.

Addition procedure

1. Add a PCI card by using the add function of the fjpciswap command.

2. Confirm the added card by using the display function of the fjpciswap command.

5．2．Common Hot Plugging Procedure for PCI Cards

This section describes the PCI card replacement procedure that does not involve additional steps (e.g., when a redundant application is not used).

Note

Insert the PCI card securely.

5．2．1．Replacement procedure

1. Confirm the physical location by using the display function of the fjpciswap command.

```
C:\>fjpciswap -l



Replaceable PCI cards are displayed

UnitName        Func      DeviceName

IOB#1-PCIC#5    FUNC#0    Intel(R) PRO/1000 PT Dual Port
Server Adapter #15

IOB#1-PCIC#5    FUNC#1    Intel(R) PRO/1000 PT Dual Port
Server Adapter #16



C:\>
```

2. Replace the PCI card by using the swap function of the fjpciswap command.

```
C:\>fjpciswap -r IOB#1-PCIC#5

Selected card name is

        Intel(R) PRO/1000 PT Dual Port Server Adapter #15

        Intel(R) PRO/1000 PT Dual Port Server Adapter #16



Please delete all settings about this card

Do you want to remove this card?(y/n)

y ←User input
```

When "Do you want to remove this card?(y/n)" appears, replace the PCI card. After replacing the PCI card, press the [y] key.

↓

```
Removing the card....

The card has removed.



Please replace the card, and input "y" key.
```

When "Please replace the card" appears, replace the PCI card.

↓

```
Please replace the card, and input "y" key.

y
```

```
Adding the card.....

The card has added.




C:\>
```

After replacing the PCI card, press the [y] key.

3. Confirm the replacement card by using the display function of the fjpciswap command.

```
C:\>fjpciswap -l



Replaceable PCI cards are displayed

UnitName        Func      DeviceName

IOB#1-PCIC#5    FUNC#0    Intel(R) PRO/1000 PT Dual Port
Server Adapter #15

IOB#1-PCIC#5    FUNC#1    Intel(R) PRO/1000 PT Dual Port
Server Adapter #16



C:\>
```

5．2．2．Addition procedure

1. Add a PCI card by using the add function of the fjpciswap command.

   Insert the PCI card into a PCI card slot. Then, specify the PCI card slot and execute the add command (-a).

```
C:\>fjpciswap -a IOB#1-PCIC#5

Adding the card.....
```

2. The card is recognized by the operating system. The command is completed.

```
C:\>fjpciswap -a IOB#1-PCIC#5

Adding the card.....

The card has added.



C:\>
```

3. Confirm the added card by using the display function of the fjpciswap command.

```
C:\>fjpciswap -l



Replaceable PCI cards are displayed

UnitName        Func      DeviceName
```

```
IOB#1-PCIC#5    FUNC#0    Intel(R) PRO/1000 PT Dual Port
Server Adapter #15

IOB#1-PCIC#5    FUNC#1    Intel(R) PRO/1000 PT Dual Port
Server Adapter #16



C:\>
```

5．2．3．About removal

Note

Windows does not support PCI card removal.

5．3．NIC Hot Plugging

For NIC hot plugging (replacement), you need to especially consider other matters in addition to the procedure described in 5.2 PCI Card Hot Plugging Common Procedure.

This section describes NIC hot plugging combined with teaming.

For details on the fjpciswap command, see 3.6 PCI Card Operation Command (fjpciswap).

５．３．１．Hot plugging a NIC incorporated into teaming

This section describes the hot plugging procedure for a NIC incorporated into teaming.

Note

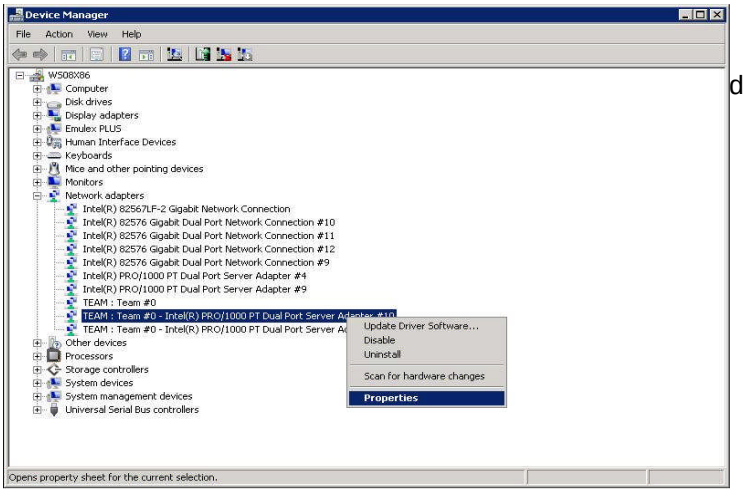
- Be sure to perform hot plugging after removing the card. If the card is not removed, the operating system may stop.
- There are some precautions on teaming with Intel PROSet(R). For details on the precautions, see APPENDIX G.8 NIC (Network Interface Card) in PRIMEQUEST 1000 Series Administration Manual (C122-E108-03EN).

1. Confirm the physical location by using the display function of the fjpciswap command. Here, replace IOB-PCIC#5.

```
C:\>fjpciswap -l



Replaceable PCI cards are displayed

UnitName        Func      DeviceName

IOB#1-PCIC#4    FUNC#0    Emulex LightPulse LPe1250-F8,
PCI Slot 4, \

Storport Miniport Driver
```

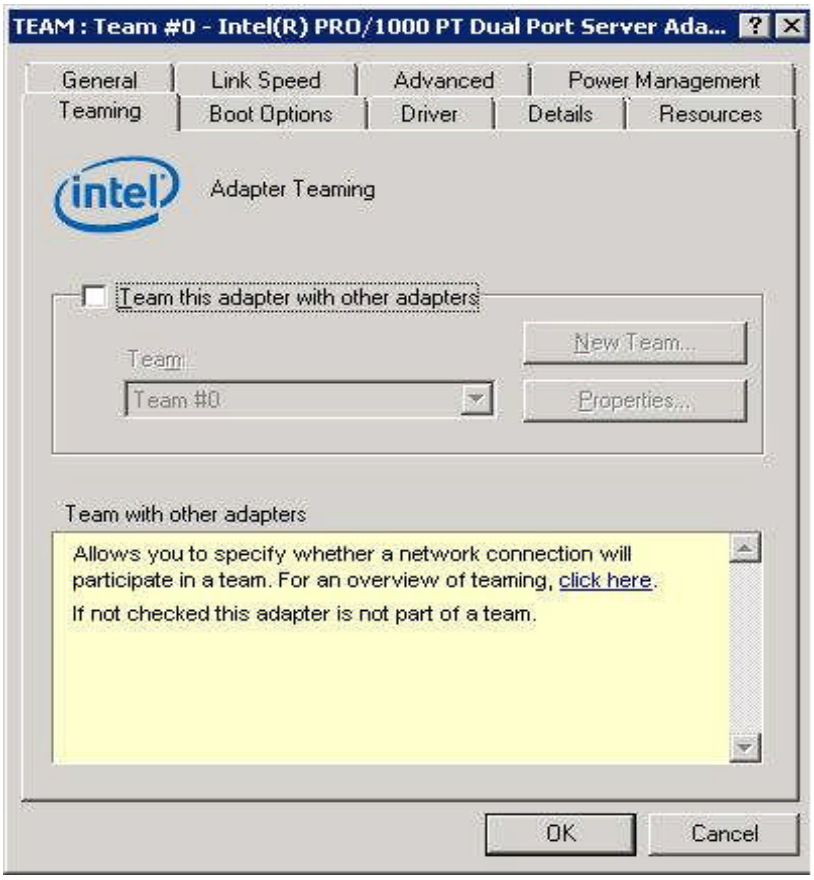
```
IOB#1-PCIC#5    FUNC#0    Team: Team #0 - Intel(R)
PRO/1000 PT \

Dual Port Server Adapter #15

IOB#1-PCIC#5    FUNC#1    Intel(R) PRO/1000 PT Dual Port
Server \

Adapter #16

IOB#1-PCIC#7    FUNC#0    Team: Team #0 - Intel(R)
PRO/1000 PT \

Dual Port Server Adapter #23

IOB#1-PCIC#7    FUNC#1    Intel(R) PRO/1000 PT Dual Port
Server Adapter #24



C:\>
```

The \ at the end of a line indicates that there is no line feed.

2. 
Device Manager
File Action View Help
WS08X86
Computer
Disk drives
Display adapters
Emulex PLUS
Human Interface Devices
Keyboards
Mice and other pointing devices
Monitors
Network adapters
Intel(R) 82567LF-2 Gigabit Network Connection
Intel(R) 82576 Gigabit Dual Port Network Connection #10
Intel(R) 82576 Gigabit Dual Port Network Connection #11
Intel(R) 82576 Gigabit Dual Port Network Connection #12
Intel(R) 82576 Gigabit Dual Port Network Connection #9
Intel(R) PRO/1000 PT Dual Port Server Adapter #4
Intel(R) PRO/1000 PT Dual Port Server Adapter #9
TEAM : Team #0
TEAM : Team #0 - Intel(R) PRO/1000 PT Dual Port Server Adapter #10
TEAM : Team #0 - Intel(R) PRO/1000 PT Dual Port Server A
Other devices
Processors
Storage controllers
System devices
System management devices
Universal Serial Bus controllers
Update Driver Software...
Disable
Uninstall
Scan for hardware changes
Properties
Opens property sheet for the current selection.
d,

[Device Manager] window

3. Select the [Teaming] tab, uncheck the [Team this adapter with other adapters] check box, and click the [OK] button.



[Teaming] tab

4. The following message appears. Click the [Yes] button.

[Adapter Teaming] properties

5. Confirm DeviceName by using the display function of the fjpciswap command. Confirm that the NIC is not incorporated into teaming.

```
C:\>fjpciswap -l


Replaceable PCI cards are displayed

UnitName      Func    DeviceName

IOB#1-PCIC#4  FUNC#0  Emulex LightPulse LPe1250-F8,
PCI Slot 4, \

Storport Miniport Driver

IOB#1-PCIC#5  FUNC#0  Intel(R) PRO/1000 PT Dual Port
Server Adapter #15

IOB#1-PCIC#5  FUNC#1  Intel(R) PRO/1000 PT Dual Port
Server Adapter #16
```

```
IOB#1-PCIC#7  FUNC#0  Team: Team #0 - Intel(R)
PRO/1000 PT \

Dual Port Server Adapter #23

IOB#1-PCIC#7  FUNC#1  Intel(R) PRO/1000 PT Dual Port
Server Adapter #24



C:\>
```

The \ at the end of a line indicates that there is no line feed.

6. Replace the NIC by executing the fjpciwap command.

```
C:\>fjpciswap -r IOB#1-PCIC#5

Selected card name is

        Intel(R) PRO/1000 PT Dual Port Server Adapter #15

        Intel(R) PRO/1000 PT Dual Port Server Adapter #16



Please delete all settings about this card

Do you want to remove this card?(y/n)

y

Removing the card.....

The card has removed.
```

```
Please replace the card, and input "y" key.

y

Adding the card.....

The card has added.




C:\>
```

When "Please replace the card" appears, replace the NIC, and insert the cable. After replacing the NIC, press the [y] key.

7. Confirm that the NIC was normally replaced by using the display function of the fjpciswap command.

```
C:\>fjpciswap -l



Replaceable PCI cards are displayed

UnitName      Func    DeviceName

IOB#1-PCIC#4  FUNC#0  Emulex LightPulse LPe1250-F8,
PCI Slot 4, \

Storport Miniport Driver

IOB#1-PCIC#5  FUNC#0  Intel(R) PRO/1000 PT Dual Port
Server Adapter #15

IOB#1-PCIC#5  FUNC#1  Intel(R) PRO/1000 PT Dual Port
Server Adapter #16
```

IOB#1-PCIC#7 FUNC#0 Team: Team #0 - Intel(R) PRO/1000 PT \

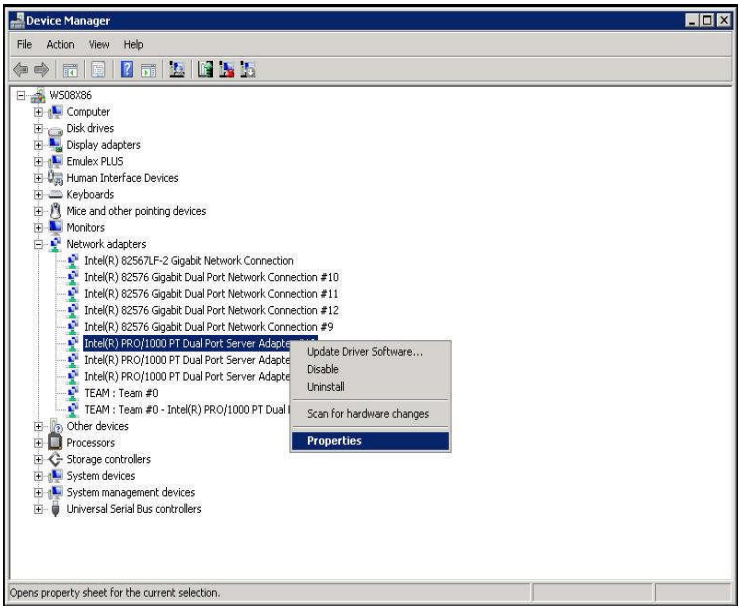
Dual Port Server Adapter #23

IOB#1-PCIC#7 FUNC#1 Intel(R) PRO/1000 PT Dual Port Server Adapter #24

C:\>

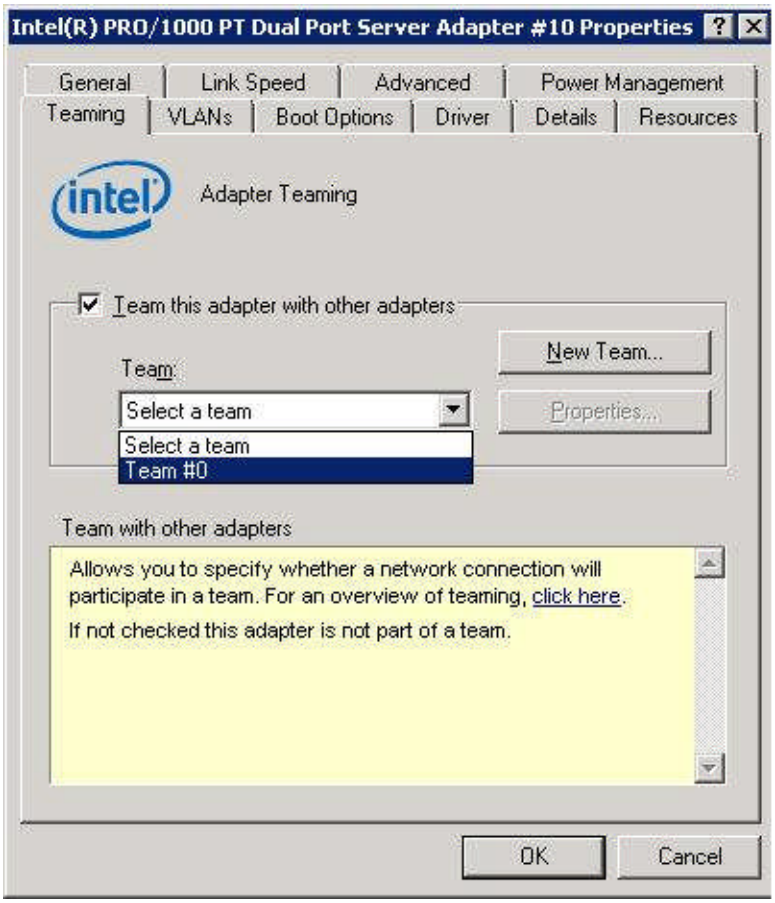
The \ at the end of a line indicates that there is no line feed.

8. After completing the replacement, open the Device Manager and open the properties dialog box of the NIC to be incorporated into teaming.



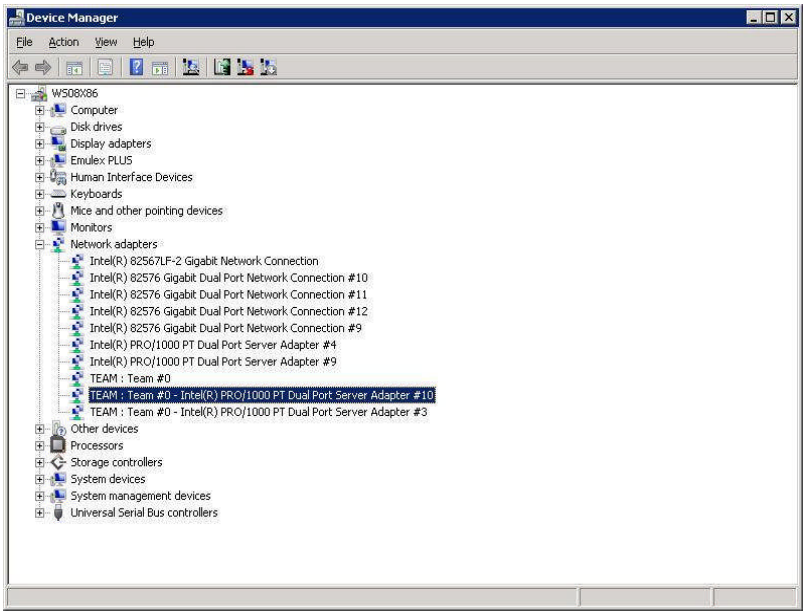
[Device Manager] window

9. On the [Teaming] tab, check [Team this adapter with other adapters], select the team into which the adapter was incorporated before the replacement, and click the [OK] button.



[Teaming] tab

10. In the Device Manager, confirm that the NIC is incorporated into the team.


Device Manager
File Action View Help
WS08X86
Computer
Disk drives
Display adapters
Emulex PLUS
Human Interface Devices
Keyboards
Mice and other pointing devices
Monitors
Network adapters
Intel(R) 82567LF-2 Gigabit Network Connection
Intel(R) 82576 Gigabit Dual Port Network Connection #10
Intel(R) 82576 Gigabit Dual Port Network Connection #11
Intel(R) 82576 Gigabit Dual Port Network Connection #12
Intel(R) 82576 Gigabit Dual Port Network Connection #9
Intel(R) PRO/1000 PT Dual Port Server Adapter #4
Intel(R) PRO/1000 PT Dual Port Server Adapter #9
TEAM : Team #0
TEAM : Team #0 - Intel(R) PRO/1000 PT Dual Port Server Adapter #10
TEAM : Team #0 - Intel(R) PRO/1000 PT Dual Port Server Adapter #3
Other devices
Processors
Storage controllers
System devices
System management devices
Universal Serial Bus controllers

[Device Manager] window

11. Execute the command that incorporates teaming information into server management software.

```
C:\>fjpciswap -f


C:\>
```

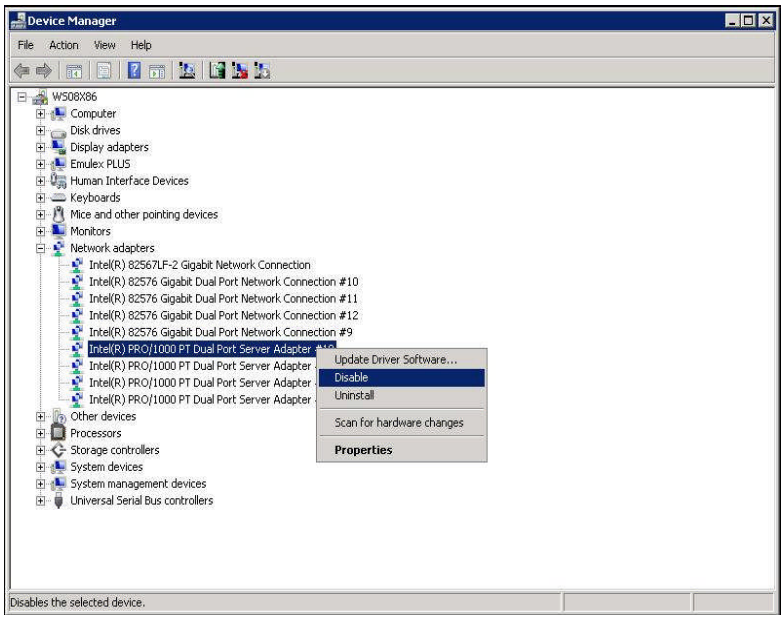
5．3．2．Hot plugging a non-redundant NIC

This section describes the hot plugging procedure in networks without redundancy (a NIC is not incorporated into teaming).

1. Confirm the physical location by using the display function of the fjpciswap command. Here, replace IOB#1-PCIC#5.

```
C:\>fjpciswap -l



Replaceable PCI cards are displayed

UnitName        Func      DeviceName

IOB#1-PCIC#5    FUNC#0    Intel(R) PRO/1000 PT Dual Port
Server Adapter #15

IOB#1-PCIC#5    FUNC#1    Intel(R) PRO/1000 PT Dual Port
Server Adapter #16



C:\>
```

2. Disable the relevant device by using the Device Manager.



[Device Manager] window

3. Replace the corresponding NIC by using the fjpciswap command.

```
C:\>fjpciswap -r IOB#1-PCIC#5

Selected card name is

        Intel(R) PRO/1000 PT Dual Port Server Adapter #15

        Intel(R) PRO/1000 PT Dual Port Server Adapter #16


Please delete all settings about this card
```

```
Do you want to remove this card?(y/n)

y

Removing the card....

The card has removed.



Please replace the card, and input "y" key.

y

Adding the card.............

The card has added.




C:\>
```

When "Please replace the card" appears, replace the NIC, and insert the cable. After replacing the NIC, press the [y] key.

4. Start the command prompt. Display a list of hot replacement enable PCI cards by using the fjpciaswap command. Confirm that the added card is correctly displayed.

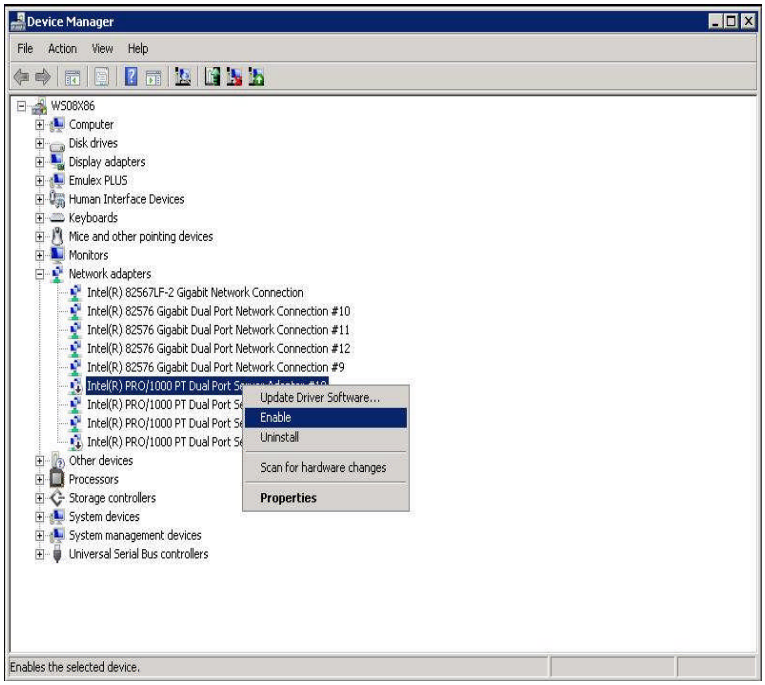
```
C:\>fjpciswap -l



Replaceable PCI cards are displayed

UnitName        Func      DeviceName
```

IOB#1-PCIC#5 FUNC#0 Intel(R) PRO/1000 PT Dual Port Server Adapter #15

IOB#1-PCIC#5 FUNC#1 Intel(R) PRO/1000 PT Dual Port Server Adapter #16

C:\>

5. As shown in following figure, right-click the target device on Device Manager, and select [Enable] if it is available in the displayed menu. (If [Disable] is displayed, skip this step.)



[Device Manager] window

5．3．3．NIC addition procedure

Referring to 5.2 Common Hot Plugging Procedure for PCI card, add a NIC.

5．4．FC Card Hot Plugging

For FC card hot plugging (replacement), you need to especially consider other matters in addition to the procedure described in 5.2 PCI Card Hot Plugging Common Procedure for PCI card.

The hot plugging of an FC card changes the WWN of the FC card if the WWN is set on an FC switch or RAID device (ETERNUS). For details on how to set the WWN again for a new card, see the respective device manuals.

This section describes hot plugging of an FC card combined with ETERNUS MPD (multipath driver).

For details on the fjpciswap command, see 3.6 PCI Card Operation Command (fjpciswap).

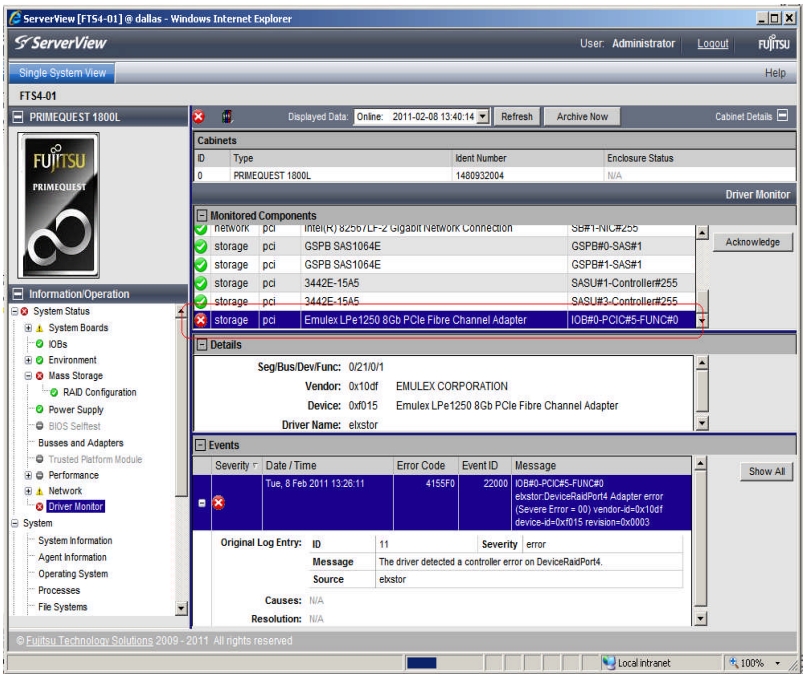
Notes

- SAN boot paths are not valid.
- LTO library devices are not supported.
- Depending on the Windows specifications, if the FC card connection destination has a Page File or other such paging scheme, FC card hot plugging may not be supported.
- The error message "Source: SVagent, ID: 25004" may be output to the event log during the replacement procedure. This message does not indicate any problem.

5．4．1．Hot plugging an FC card incorporated with the ETERNUS multipath driver

This section describes the hot plugging procedure for an FC card incorporated with the ETERNUS multipath driver.

1. From the SVOM Web-UI, click [System Status] - [Driver Monitor] to search for the FC card to be replaced.
   You can search for the FC card to be replaced from the Unit names or BUS numbers.
   Suppose that you are going to replace IOB#0-PCIC#5. The red box indicates the target device.



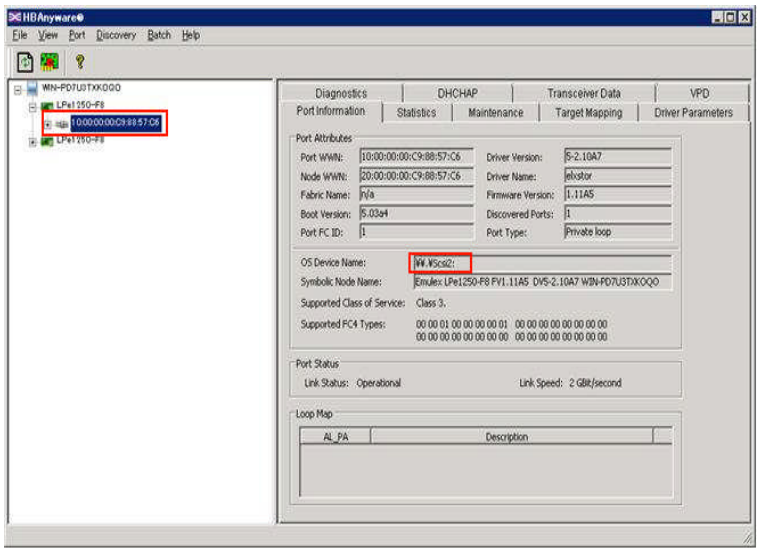
[Driver Monitor] window

Remarks

Some multifunction cards differ only in the part after FUNC in the Unit name. Also, some differ only in the Func number at [Seg/Bus/Dev/Func]. Perform the following steps 2 and 3 for each of these multifunction cards.

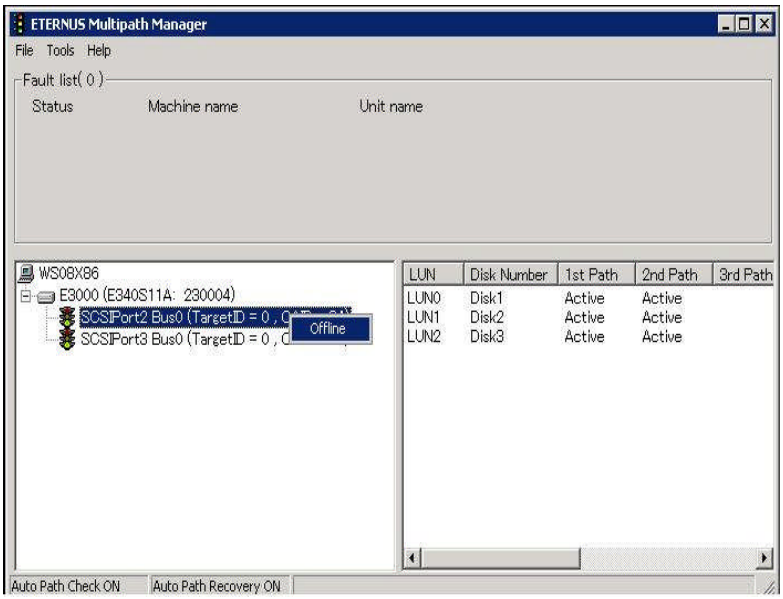
2. Select the UNIT name of the FC card to be replaced in [Driver Monitor] window, and record the "WWN (hex)" value of the replacement device.

3. Start HBAnywhere and acquire the port number of the replacement device based on the WWN acquired in step 2. From the left pane, select the relevant WWN. From the right pane, select the [Port Information] tab. The information displayed in [OS Device Name] is a port number (in the following example, \\.\Scsi2).



HBAnyware

4. Start ETERNUS Multipath Manager and place all the devices to be replaced offline.



ETERNUS Multipath Manager

5. Replace the FC card by executing the following command. Exit ETERNUS Multipath Manager and HBAnywhere. Replace the relevant card by using the replacement function of the fjpciswap command.

```
C:\>fjpciswap -r IOB#0-PCIC#5

Selected card name is

        Emulex LightPulse LPe1250-F8, PCI Slot 4, Storport
Miniport Driver
```

```
Please delete all settings about this card

Do you want to remove this card?(y/n)

y

Removing the card.....

The card has removed.



Please replace the card, and input "y" key.

y

Adding the card.............

The card has added.




C:\>
```

When "Please replace the card" appears, replace the FC card, and insert the cable. After replacing the FC card, press the [y] key.

Remarks

The process may stop with the following message. This message is displayed if an application is referencing the FC card or if the card was replaced soon after the device went offline.

Check whether any application is referencing the FC card. If no application is referencing the card, wait about 10 minutes and reexecute the command. Depending on the configuration, it may take a much longer time to replace the FC card.

```
C:\>fjpciswap -r IOB#0-PCIC#5

Selected card name is

        Emulex LightPulse LPe1250-F8, PCI Slot 4, Storport
Miniport Driver



Please delete all settings about this card

Do you want to remove this card?(y/n)

y

Removing the card...

ServerView Agents : E 08745 internal error :Device_Eject
failed:PCI\VEN_10DF&DEV_F015& \

SUBSYS_F01510DF&REV_03\8&39e14fc5&0&00000008

0048:23:679



C:\>
```

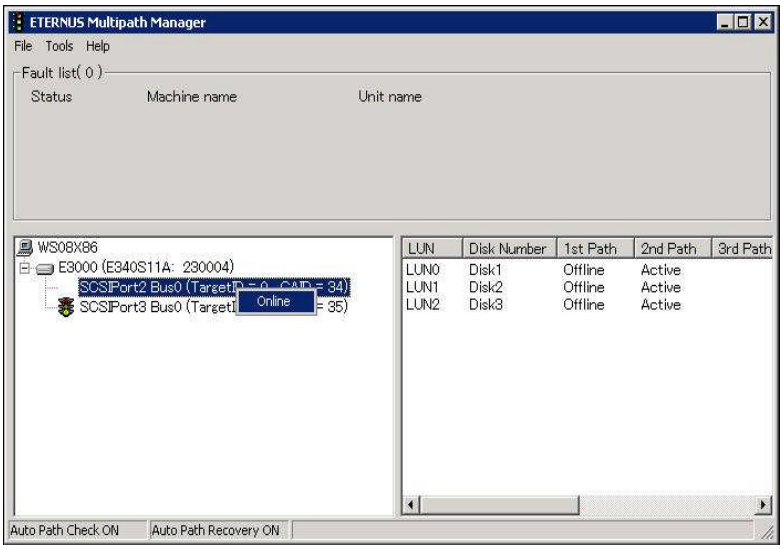
The \ at the end of a line indicates that there is no line feed.

6. Confirm the FC card installation by using the fjpciswap command.

```
C:\>fjpciswap -l



Replaceable PCI cards are displayed

UnitName      Func    DeviceName

IOB#0-PCIC#5  FUNC#0  Emulex LightPulse LPe1250-F8, PCI Slot 4, \

Storport Miniport Driver

IOB#1-PCIC#6  FUNC#0  Emulex LightPulse LPe1250-F8, PCI Slot 6, \

Storport Miniport Driver



C:\>
```

The \ at the end of a line indicates that there is no line feed.

7. Start ETERNUS Multipath Manager and place all the replaced devices online. Confirm that the devices are normally incorporated with the multipath driver.



ERNUS Multipath Manager

5．4．2．FC card addition procedure

Referring to 5.2 Common Hot Plugging Procedure for PCI card, add an FC card.

5.5. Hot Replacement Procedure for iSCSI

The prerequisites for iSCSI (NIC) hot replacement are as follows.

- The target system runs Windows Server 2008 or later.
- The maintenance person has the Administrator privileges required for operations.
- The ETERNUS multipath driver (MPD) has been applied.
- To replace more than one card, one card at a time will be replaced.

For details on the fjpciswap command, see Section 3.6 PCI Card Operation Command (fjpciswap) in Chapter 3 SVmco CLI (Command Line Interface) Operations.

5.5.1. Confirming the incorporation of a card with MPD

This section describes the procedure for confirming that a card has been incorporated with MPD.

- Windows Server 2008

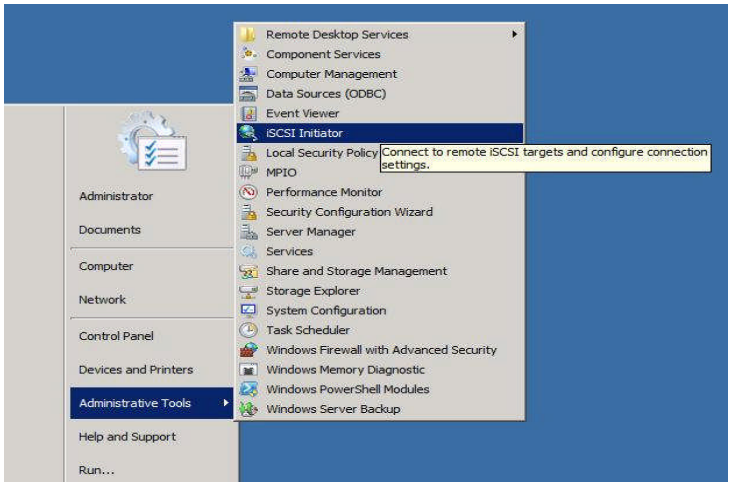
1. From the MMB Web-UI, click [System Status] - [Driver Monitor] to search for the NIC to be replaced. You can search for the NIC to be replaced from the Unit names or BUS numbers.

   Suppose that you are going to replace IOB#0-PCIC#5. The red box indicates the target device.

   Some multifunction cards differ only in the part after FUNC in the Unit name. Also, some differ only in the Func number at [Seg/Bus/Dev/Func]. Perform the following steps 2 to 9 for each of these multifunction cards.

2. Select the Unit name of the NIC to be replaced in the [Driver Monitor] window and record MAC address. Search recorded MAC address from [System Status] - [Network] - [Network Interface] and record the "IP Address" and "IP Subnet Mask" values under "IP v4 Interfaces" in order to search for the device to be replaced or set these values again after replacement.

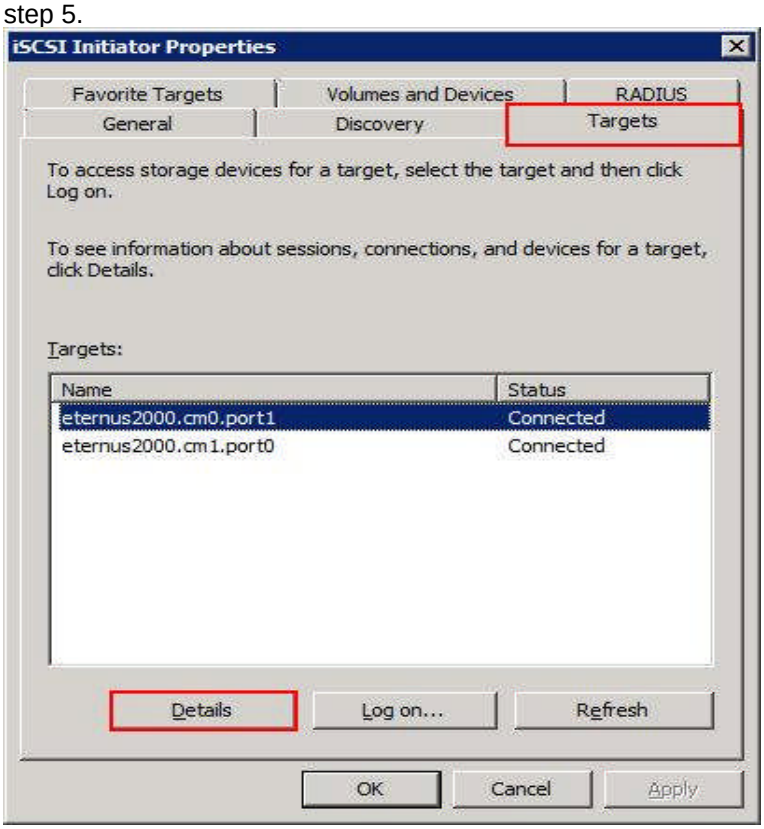
3. Start iSCSI Initiator.



Starting [iSCSI Initiator]

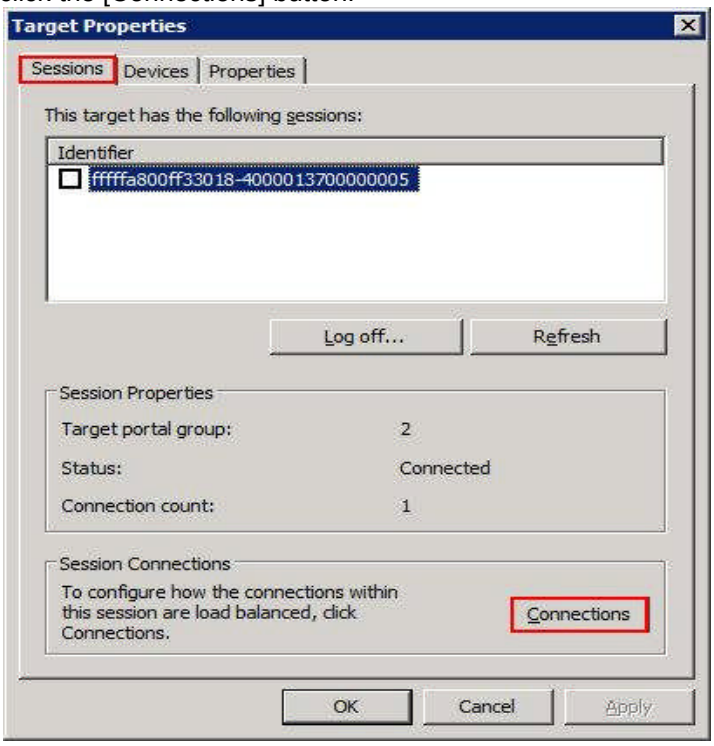
The following steps 4 to 9 vary depending on the version, Windows Server 2008 or Windows Server 2008 R2 or later.

4. Click the [Targets] tab in the [iSCSI Initiator Properties] window. One of the targets displayed in [Targets] is connected to the NIC to be replaced. If you know which target, select the target, click the [Details] button, and proceed to step 8. If you do not know, select any target, click the [Details] button, and proceed to step 5.



[iSCSI Initiator Properties] window (in Windows Server 2008)

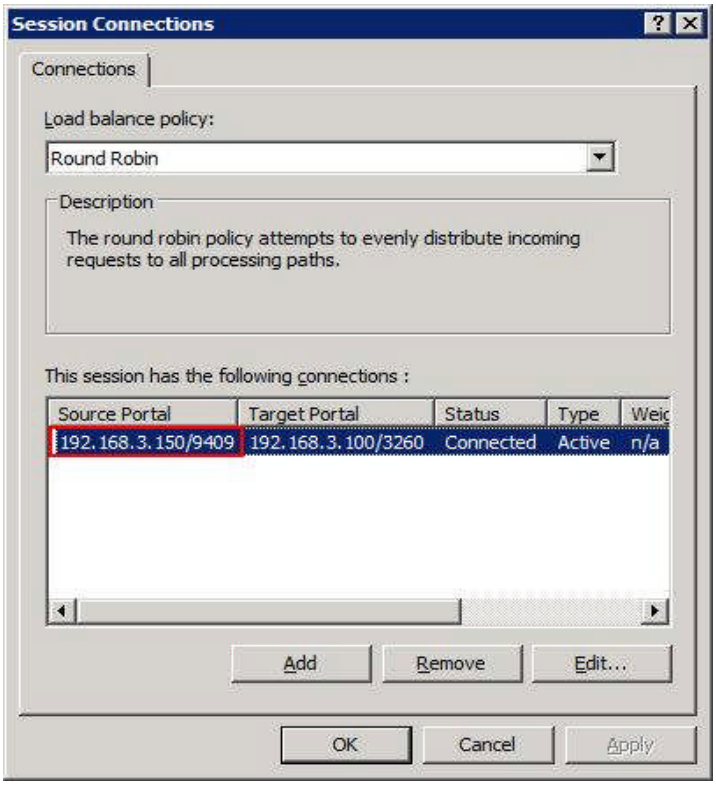
5. Click the [Sessions] tab in the [Target Properties] window, and click the [Connections] button.



[Target Properties] window

6. The [Source Portal] column in the [Session Connections] window displays IP addresses. Check whether any IP address matches that recorded in step 2.

   If an IP address matches (192.168.3.150, in this example), this is the target connected to the device to be replaced.



[Session Connections] window

7. If no IP address in step 6 matches, repeat steps as follows.

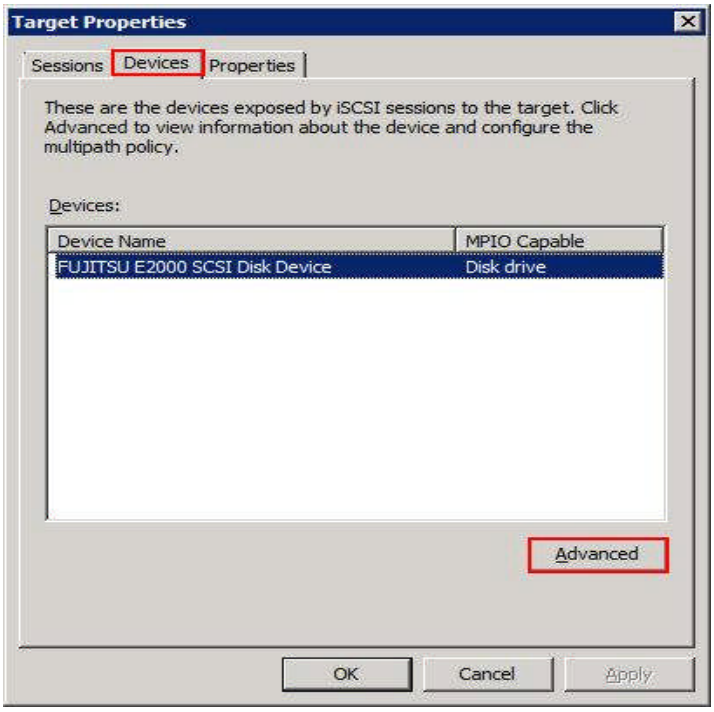
   1. Click the [Cancel] button to return to the [Target Properties] window shown in step 5.

2. Click the [Cancel] button again to return to the [iSCSI Initiator Properties] window shown in step 4.

3. Select the next target, and repeat the steps after step 4.

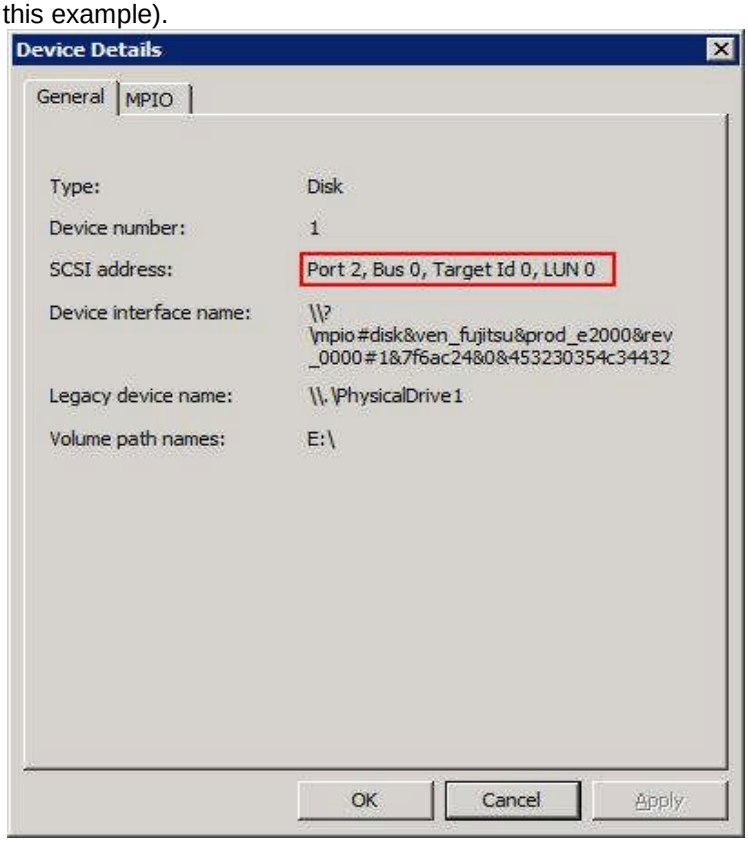
If an IP address matches, click the [Cancel] button to return to the [Target Properties] window shown in step 5, and proceed to step 8.

8. Click the [Devices] tab in the [Target Properties] window, and click the [Advanced] button.



[Target Properties] window

9. Record the values displayed on the [SCSI address] line in the [Device Details] window (Port 2, Bus 0, Target ID 0, LUN 0, in this example).



[Device Details] window

- Windows Server 2008 R2 or later

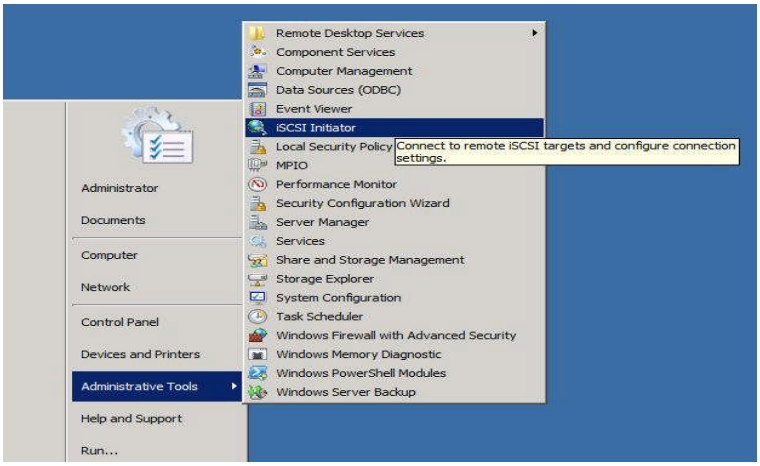
1. From the MMB Web-UI, click [System Status] - [Driver Monitor] to search for the NIC to be replaced. You can search for the NIC to be replaced from the Unit names or BUS numbers.

   Suppose that you are going to replace IOB#0-PCIC#7. The red box indicates the target device.

Some multifunction cards differ only in the part after FUNC in the Unit name. Also, some differ only in the Func number at [Seg/Bus/Dev/Func]. Perform the following steps 2 to 9 for each of these multifunction cards.

2. Select the Unit name of the NIC to be replaced in the [Driver Monitor] window and record MAC address. Search recorded MAC address from [System Status] - [Network] - [Network Interface] and record the "IP Address" and "IP Subnet Mask" values under "IP v4 Interfaces" in order to search for the device to be replaced or set these values again after replacement.

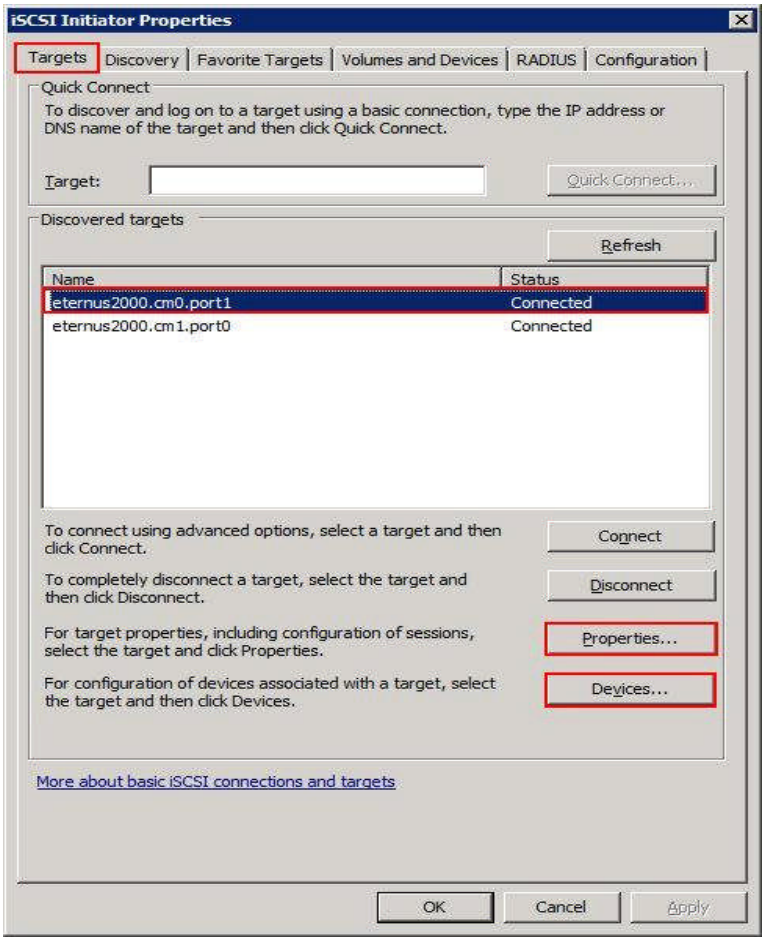
3. Start iSCSI Initiator.



[iSCSI Initiator]

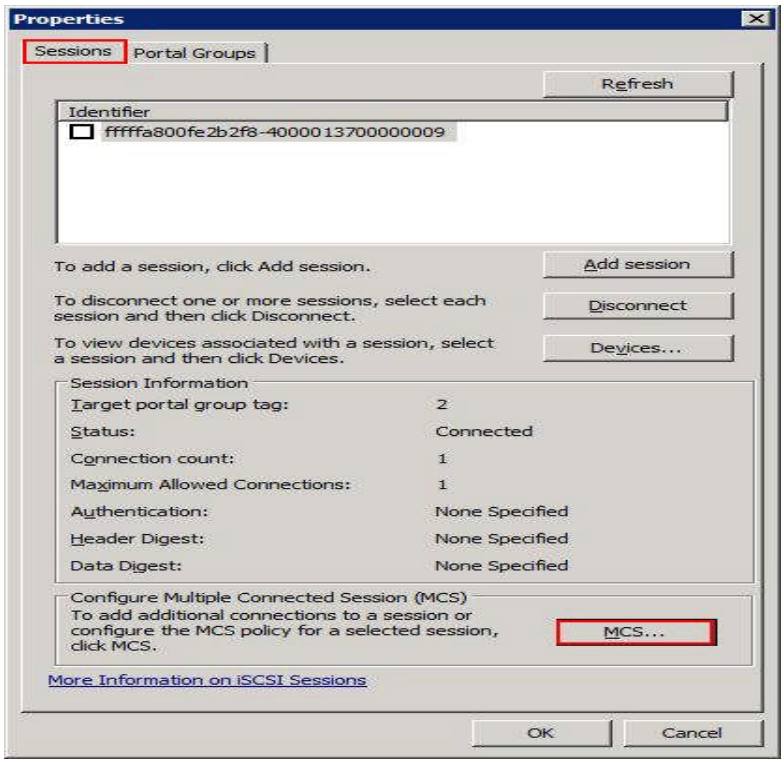
4. Click the [Targets] tab in the [iSCSI Initiator Properties] window. One of the targets displayed in [Discovered targets] is connected to the NIC to be replaced. If you know which target, select the target, click the [Devices] button, and proceed to step 9.

   If you do not know, select any target, click the [Properties] button, and proceed to step 5.



[iSCSI Initiator Properties] window (in Windows Server 2008 R2 or later)

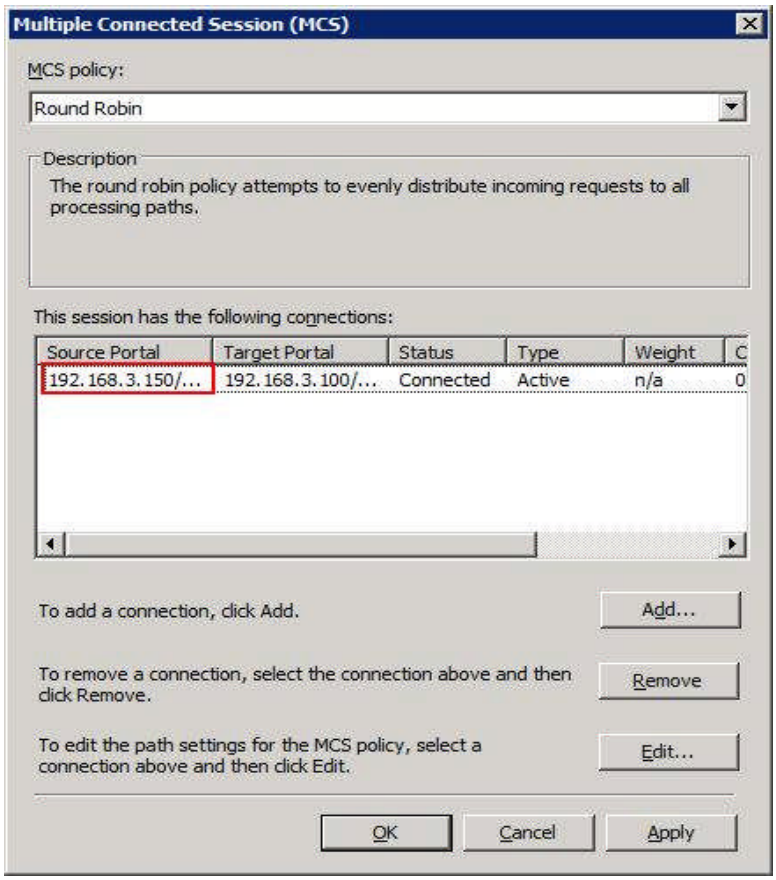
5. Click the [Sessions] tab in the [Properties] window, and click the [MCS] button.


Properties
Sessions
Portal Groups
Refresh
Identifier
fffffa800fe2b2f8-4000013700000009
To add a session, click Add session.
Add session
To disconnect one or more sessions, select each session and then click Disconnect.
Disconnect
To view devices associated with a session, select a session and then click Devices.
Devices...
Session Information
Target portal group tag: 2
Status: Connected
Connection count: 1
Maximum Allowed Connections: 1
Authentication: None Specified
Header Digest: None Specified
Data Digest: None Specified
Configure Multiple Connected Session (MCS)
To add additional connections to a session or configure the MCS policy for a selected session, click MCS.
MCS...
More Information on iSCSI Sessions
OK
Cancel

[Properties] window

6. The [Source Portal] column in the [Multiple Connected Session (MCS)] window displays IP addresses. Check whether any IP address matches that recorded in step 2.

   If an IP address matches (192.168.3.150, in this example), this is the target connected to the device to be replaced.

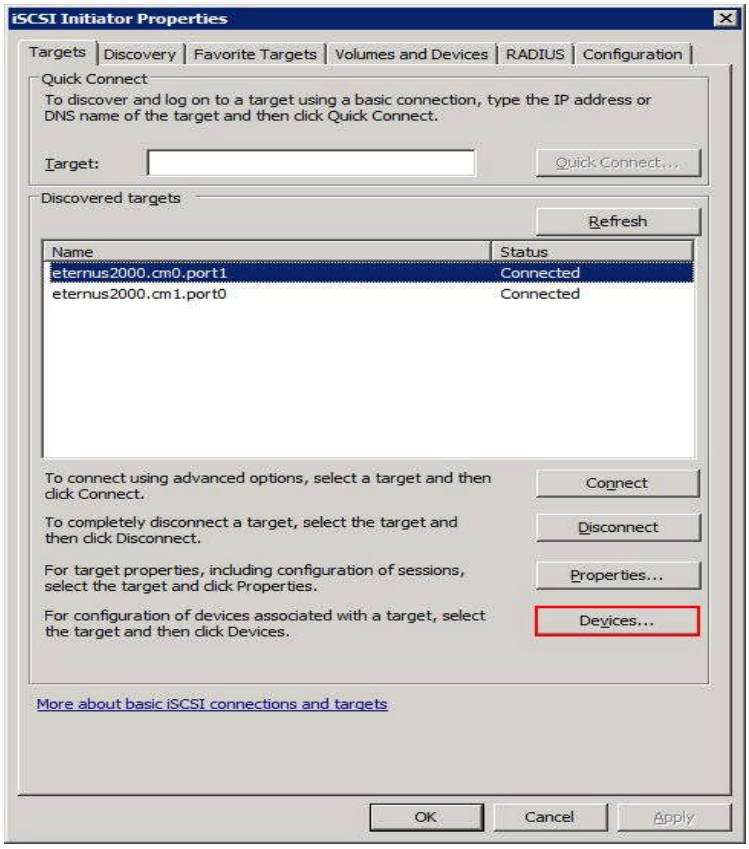


[Multiple Connected Session (MCS)] window

7. Click the [Cancel] button to return to [Properties] window shown in step 5, and click the [Cancel] button again to return to the [iSCSI Initiator Properties] window shown in step 4.

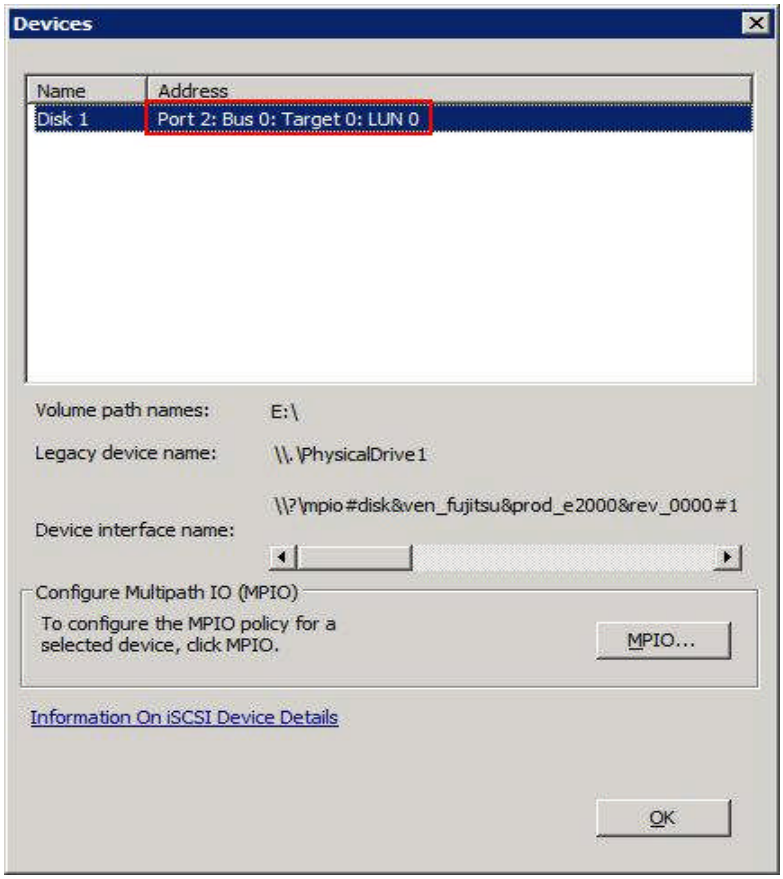
8. If no IP address in step 6 matches, select the next target, and repeat the steps after step 4.

   Otherwise, click the [Devices] button.



[iSCSI Initiator Properties] window (in Windows Server 2008 R2 or later)

9. Record the values displayed in the [Address] column in the [Devices] window (Port 2: Bus 0: Target 0: LUN 0, in this example).



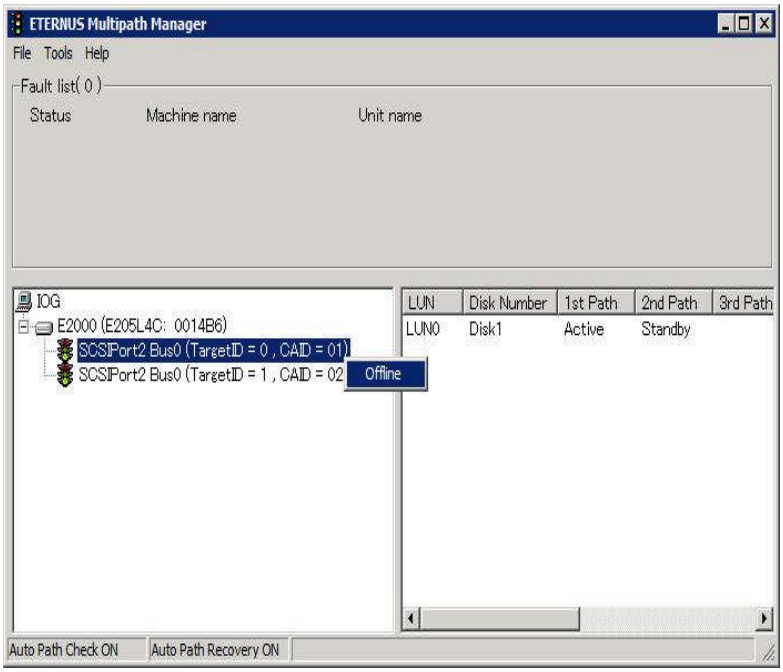
[Devices] window

5．5．2．Disconnecting MPD

This section describes the procedure for disconnecting MPD.

1. Start ETERNUS Multipath Manager.

2. Confirm the address value recorded in step 9 in 6.5.1 Confirming the incorporation of a card with MPD. Then, place the target device offline. For a multifunction card, it is necessary to place more than one device offline.



[ETERNUS Multipath Manager] window

3. Referring to 5.3 NIC Hot Plugging in the *PRIMEQUEST 1000 Series Administration Manual* (C122-E108EN), replace the NIC.

Remarks

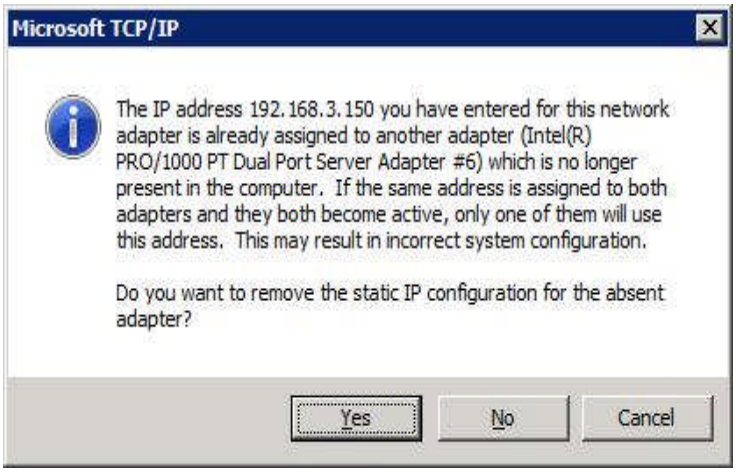
The error message "Source: SVagent, ID: 25004" may be output to the event log during the replacement procedure. This message does not indicate any problem.

4. Set an IP address for the replacement device.

Set the IP address and subnet mask recorded in step 2.

Remarks

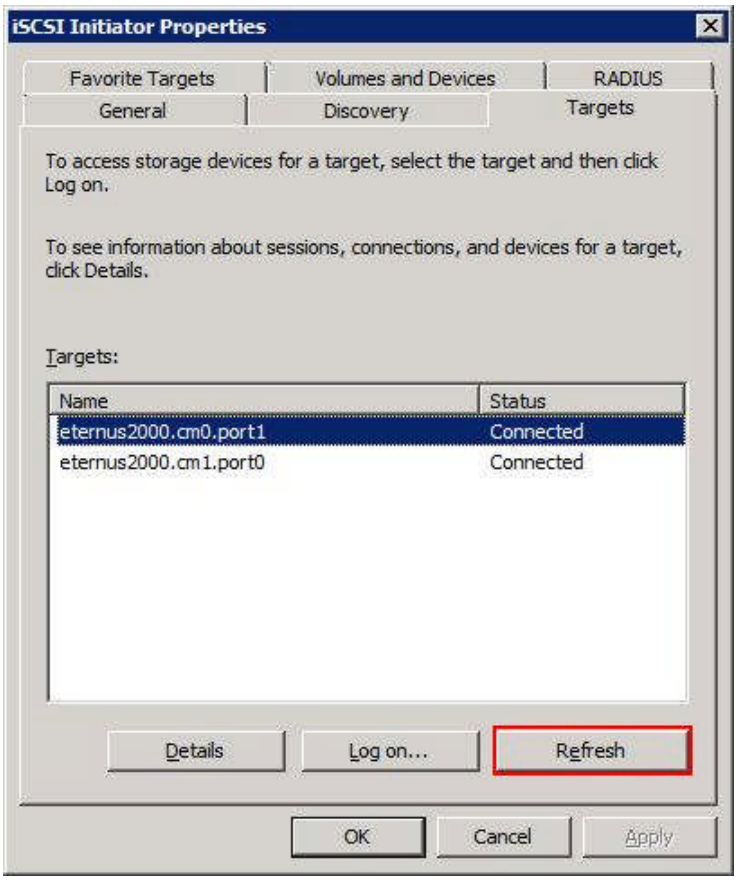
If the following message appears when you set the IP address, select [Yes].


Microsoft TCP/IP
The IP address 192.168.3.150 you have entered for this network adapter is already assigned to another adapter (Intel(R) PRO/1000 PT Dual Port Server Adapter #6) which is no longer present in the computer. If the same address is assigned to both adapters and they both become active, only one of them will use this address. This may result in incorrect system configuration.
Do you want to remove the static IP configuration for the absent adapter?
Yes
No
Cancel

TCP/IP deletion message

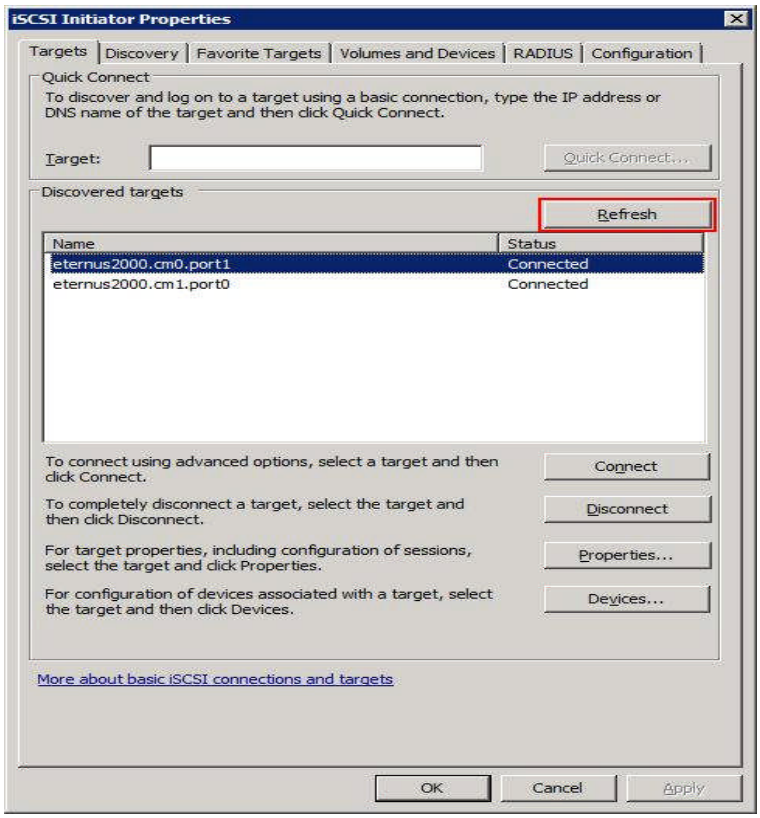
5. Click the [Refresh] button on the [Targets] tab in the [iSCSI Initiator Properties] window. Confirm that the target status becomes [Connected].

-Windows Server 2008



[iSCSI Initiator Properties] window (in Windows Server 2008)

-Windows Server 2008 R2 or later



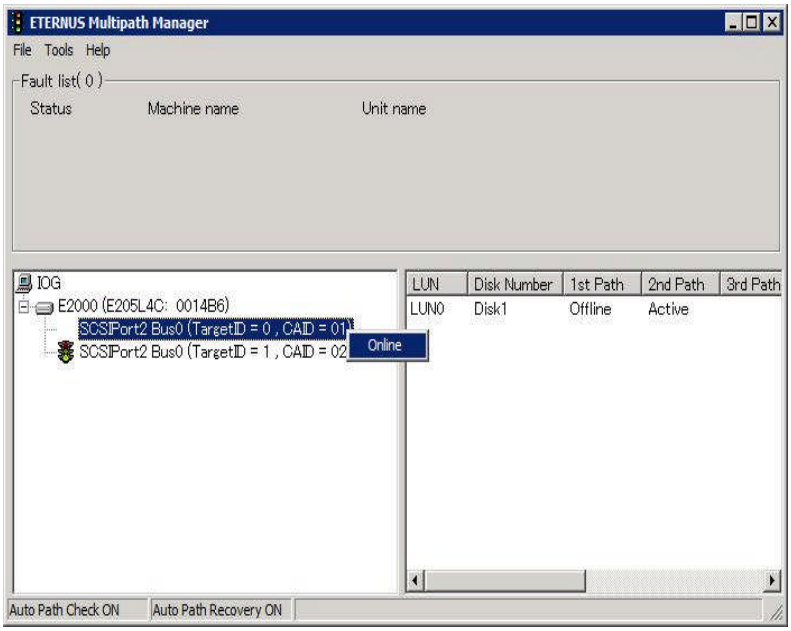
[iSCSI Initiator Properties] window (in Windows Server 2008 R2 or later)

5．5．3．Incorporating a card with MPD

This section describes the procedure for incorporating a card with MPD.

1. Start ETERNUS Multipath Manager.

2. Place the replacement device online. For a multifunction card, place all the devices online.



ETERNUS Multipath Manager

6. Manual SVmco Installation and Uninstallation

This appendix describes how to manually install and uninstall SVmco for a specific operating system.

If you use SVIM to install the operating system, you need not manually install SVmco.

6.1. Manually Installing SVmco (Linux: Red Hat Enterprise Linux)

This section describes how to manually install SVmco in Linux (Red Hat Enterprise Linux).

Remarks

To operate the PRIMEQUEST 1000x2 series server, you need to first install SVmco. Otherwise, the following restrictions apply.

- Even under an REMCS agreement, no software errors are reported.
- Hot maintenance of hard disks is disabled. The partition must be stopped for maintenance.
- PRIMECLUSTER linkage is disabled.

6.1.1 Installation flow

For details on how to install SVmco, see Chapter 4 Installing the Operating System and Bundled Software in PRIMEQUEST 1000 Series Installation Manual. For details on how to configure SVmco, see 2.1 Configuring SVmco (Linux: Red Hat Enterprise Linux).

Remarks

- After changing the MMB IP address on a partition or the management LAN IP address,
  restart SVmco. Otherwise, SVmco would not be able to report any detected errors.

- If you use SVIM to install the operating system, you need not manually install SVmco. However, after installation with SVIM, you will need to check and make settings according to 6.1.2 Checks before SVmco installation and 6.1.6 Settings after SVmco installation.

6.1.2 Checks before SVmco installation

This section describes the checks to make before SVmco installation.

- Confirming PSA-to-MMB communication LAN settings
- Confirming management LAN settings

- Confirming the functions required for SVmco operation

Confirming PSA-to-MMB communication LAN settings

For details on how to confirm PSA-to-MMB communication LAN settings, see 2.1.1 Configuring the PSA-to-MMB communication LAN and 2.1.5 Setting the management LAN IP address.

Confirming management LAN settings

For details on how to confirm management LAN settings, see 2.1.2 Confirming management LAN settings.

6.1.3. Installing SVmco

Execute the following command to install the SVmco package.

The following explanation is based on the assumption that the SVmco package (SVmco-$VER-$REL.tar.gz) has been extracted in the work directory ($WORK_DIR):

Syntax

```
cd $WORK_DIR/SVmco

./INSTALL.sh
```

6．1．4．Automatic configuration during SVmco installation

The following table lists settings for SVmco operation. The installer automatically adds or updates these settings during SVmco installation.

Settings automatically added/changed during SVmco installation

Target	Action	Remarks
syslog.conf file	Add setting	
snmpd.conf file	Add setting	
snmptrapd.conf file	Add setting	
snmptrapd start option	Change	
snmpd start option	Change	
Dedicated PSA-to-MMB communication LAN interface	Set IP address	Referring to 2.1.1 Configuring the PSA-to-MMB communication LAN, change settings as needed.
iptables setting	Add setting	Only a chain for PSA-MMB communication is created during manual installation of SVmco. Referring to Checking the firewall function (opening ports) in 6.1.6 Settings after

Target	Action	Remarks
		SVmco installation, add the jump setting for the chain for PSA-MMB communication to INPUT and OUTPUT chains manually.
SELinux configuration file (/etc/selinux/conf)	Change	If SELinux is disabled, do not change the settings.

6.1.5. Restarting the partition

After installing SVmco, restart the partition with a reboot.

Syntax

```
/sbin/reboot
```

6.1.6. Settings after SVmco installation

This section describes the settings after SVmco installation.

- Confirming SELinux function settings
- Checking the firewall function (opening ports)
- Setting the destinations of traps from a partition
- Configuring SNMP to use duplicate disks
- Configuring SNMP to use duplicate disks

- Confirming SELinux function settings

For details on how to confirm SELinux function settings, see 2.1.3 Confirming SELinux function settings.

- Checking the firewall function (opening ports)

For the required firewall for the PSA-MMB communication LAN and the management LAN, only a chain is automatically configured.

Since the settings related to PSA-MMB communication LAN interfaces are essential, add the jump setting for the chain for PSA-MMB communication (referred to below as the PSA-MMB_LAN chain) to INPUT and OUTPUT chains in iptables manually. For the setting procedure, see PSA-to-MMB communication LAN interfaces.

Also, the settings related to management LAN interfaces are required only for PRIMECLUSTER linkage. For the setting procedure, see Management LAN interfaces in 2.1.4 Checking the firewall function (opening ports).

PSA-to-MMB communication LAN interfaces

The firewall settings vary depending on the environment. The settings shown in the following procedure are an example of settings for PSA-to-MMB communication.

Example: REJECT setting in INPUT and FORWARD
iptables -L -n
Chain INPUT (policy ACCEPT)
target prot opt source destination
ACCEPT all -- 0.0.0.0/0 0.0.0.0/0 state
RELATED,ESTABLISHED
ACCEPT icmp -- 0.0.0.0/0 0.0.0.0/0
ACCEPT all -- 0.0.0.0/0 0.0.0.0/0
ACCEPT tcp -- 0.0.0.0/0 0.0.0.0/0 state NEW tcp dpt:22
REJECT all -- 0.0.0.0/0 0.0.0.0/0 reject-with icmp-host-
prohibited

Chain FORWARD (policy ACCEPT)
target prot opt source destination
REJECT all -- 0.0.0.0/0 0.0.0.0/0 reject-with icmp-host-
prohibited

Chain OUTPUT (policy ACCEPT)
target prot opt source destination

Chain PSA-MMB_LAN (2 references)
target prot opt source destination
ACCEPT all -- 0.0.0.0/0 0.0.0.0/0
ACCEPT all -- 0.0.0.0/0 0.0.0.0/0
ACCEPT icmp -- 0.0.0.0/0 0.0.0.0/0 icmp type 8
ACCEPT icmp -- 0.0.0.0/0 0.0.0.0/0 icmp type 0
ACCEPT udp -- 0.0.0.0/0 0.0.0.0/0 udp dpt:161
ACCEPT udp -- 0.0.0.0/0 0.0.0.0/0 udp spt:161
ACCEPT tcp -- 0.0.0.0/0 0.0.0.0/0 tcp dpt:24450
ACCEPT tcp -- 0.0.0.0/0 0.0.0.0/0 tcp spt:24450
ACCEPT tcp -- 0.0.0.0/0 0.0.0.0/0 tcp spt:5000
ACCEPT tcp -- 0.0.0.0/0 0.0.0.0/0 tcp dpt:5000

1. Confirm that the PSA-MMB_LAN chain has been created.

```
# /sbin/iptables -L
```

```
# iptables -L Execution result
Chain INPUT (policy ACCEPT)
target    prot  opt source     destination
ACCEPT     all   --  0.0.0.0/0      0.0.0.0/0  state
RELATED,ESTABLISHED
ACCEPT     icmp  --  0.0.0.0/0      0.0.0.0/0
ACCEPT     all   --  0.0.0.0/0      0.0.0.0/0
ACCEPT     tcp   --  0.0.0.0/0      0.0.0.0/0  state NEW tcp dpt:22
REJECT     all   --  0.0.0.0/0      0.0.0.0/0  reject-with icmp-host-
prohibited

Chain FORWARD (policy ACCEPT)
target   prot  opt source     destination
REJECT     all   --  0.0.0.0/0      0.0.0.0/0  reject-with icmp-host-
prohibited

Chain OUTPUT (policy ACCEPT)
target   prot  opt source     destination

Chain PSA-MMB_LAN (2 references)
target    prot  opt source     destination
ACCEPT     all   --  0.0.0.0/0      0.0.0.0/0
ACCEPT     all   --  0.0.0.0/0      0.0.0.0/0
ACCEPT     icmp  --  0.0.0.0/0      0.0.0.0/0  icmp type 8
ACCEPT     icmp  --  0.0.0.0/0      0.0.0.0/0  icmp type 0
ACCEPT     udp   --  0.0.0.0/0      0.0.0.0/0  udp dpt:161
ACCEPT     udp   --  0.0.0.0/0      0.0.0.0/0  udp spt:161
ACCEPT     tcp   --  0.0.0.0/0      0.0.0.0/0  tcp dpt:24450
ACCEPT     tcp   --  0.0.0.0/0      0.0.0.0/0  tcp spt:24450
ACCEPT     tcp   --  0.0.0.0/0      0.0.0.0/0  tcp spt:5000
ACCEPT     tcp   --  0.0.0.0/0      0.0.0.0/0  tcp dpt:5000
```

2. Add the jump setting for the PSA-MMB_LAN chain to INPUT and OUTPUT chains.

   Make the setting such that there are no interruptions by an existing REJECT setting in an INPUT or OUTPUT chain or by a user definition chain.

   Here, use the following command to add the setting to the fifth INPUT chain (before the REJECT setting) and to the OUTPUT chain. (For details on the iptables option, see the man manual.)

```
# /sbin/iptables –I INPUT 5 –j PSA-MMB_LAN

# /sbn/iptables –A OUTPUT –j PSA-MMB_LAN
```

3. Execute the iptables -L command, and confirm that the PSA-MMB_LAN chains added to the INPUT and OUTPUT chains are not interrupted by the previous REJECT, DROP, or other settings.

```
Example of settings:
# iptables –L
Chain INPUT (policy ACCEPT)
target     prot  opt source     destination
ACCEPT       all   --  0.0.0.0/0      0.0.0.0/0  state
RELATED,ESTABLISHED
ACCEPT       icmp  --  0.0.0.0/0      0.0.0.0/0
ACCEPT       all   --  0.0.0.0/0      0.0.0.0/0
ACCEPT       tcp   --  0.0.0.0/0      0.0.0.0/0  state NEW tcp
dpt:22
PSA-MMB_LAN  all   --  0.0.0.0/0      0.0.0.0/0
REJECT       all   --  0.0.0.0/0      0.0.0.0/0  reject-with icmp-
host-prohibited

Chain FORWARD (policy ACCEPT)
target     prot  opt source     destination
REJECT       all   --  0.0.0.0/0      0.0.0.0/0  reject-with icmp-
host-prohibited
```

```
Chain OUTPUT (policy ACCEPT)
target     prot  opt source     destination
PSA-MMB_LAN  all  --  0.0.0.0/0       0.0.0.0/0

Chain MMLAN (2 references)
target      prot  opt source     destination
ACCEPT       all  --  0.0.0.0/0       0.0.0.0/0
ACCEPT       all  --  0.0.0.0/0       0.0.0.0/0
ACCEPT       icmp --  0.0.0.0/0       0.0.0.0/0  icmp type 8
ACCEPT       icmp --  0.0.0.0/0       0.0.0.0/0  icmp type 0
ACCEPT       udp  --  0.0.0.0/0       0.0.0.0/0  udp dpt:161
ACCEPT       udp  --  0.0.0.0/0       0.0.0.0/0  udp spt:161
ACCEPT       tcp  --  0.0.0.0/0       0.0.0.0/0  tcp dpt:24450
ACCEPT       tcp  --  0.0.0.0/0       0.0.0.0/0  tcp spt:24450
ACCEPT       tcp  --  0.0.0.0/0       0.0.0.0/0  tcp spt:5000
ACCEPT       tcp  --  0.0.0.0/0       0.0.0.0/0  tcp dpt:5000
```

4. Save the firewall configuration.

```
# /sbin/service iptables save
```

- Setting the destinations of traps from a partition

For details on how to set the destinations of traps from a partition, see 2.1.6 Setting the destinations of traps from a partition.

Remarks

- Make settings only as needed.
- Operations management software, such as Systemwalker, needs these settings to manage events by partition.

- Configuring SNMP to use duplicate disks

For details on how to configure SNMP to use duplicate disks, see 2.1.7 Configuring SNMP to use duplicate disks.

6.1.7. Installing a SVmco update

For details on how to install a SVmco update, see 2.1.8 Installing a SVmco update.

6.1.8. Uninstalling SVmco

For details on how to uninstall SVmco, see 2.1.9 Uninstalling SVmco.

6.2. Manually Installing SVmco (Windows Server 2008)

This section describes how to install SVmco in Windows Server 2008. You need to log in with Administrator privileges for installation. To install the SVmco as a non-Administrator user with Administrator privileges, right-click the file, and select [Execute as Administrator] from the menu that appears. Then, install SVmco.

Remarks

To operate the PRIMEQUEST 1000x2 series server, you need to first install SVmco. Otherwise, the following restrictions apply.

- Even under an REMCS agreement, no software errors are reported.
- Hot maintenance of PCI cards is disabled. The partition must be stopped for maintenance.

6.2.1. Installation flow

For the SVmco installation flow, see Chapter 4 Installing the Operating System and Bundled Software in PRIMEQUEST 1000 Series Installation Manual. For details on how to configure SVmco, see 2.2 Configuration SVmco (Windows Server 2008).

Remarks

- If you use SVIM to install the operating system, you need not install SVmco. However, after installation with SVIM, you need to check and make settings according to 6.2.2 Checks before SVmco installation and 6.2.6 Settings after SVmco installation.
- After installing SVmco, execute the SNMP security setting command (setsnmpsec) before you perform the operation in the following situations. For details on the command, see 3.5 SNMP Security Setting Command (setsnmpsec).
  - You will be changing the SNMP Service security setting from [Accept SNMP packets from any host] to [Accept SNMP packets from these hosts].
  - You will be changing the MMB IP address.

- If you change the MMB IP address or the management LAN IP address on the partition, be sure to then restart SVmco. Otherwise, SVmco would not be able to post any detected errors.

Notes on configuring Windows Server 2008

- Do not stop the Windows Print Spooler service. The information collection function of the operating system uses WMI (Windows Management Instrumentation). If the Print Spooler service is stopped, the function cannot collect the correct configuration information because WMI reports an error.

- If the set value of the following registry key is less than 20000 (20 seconds), the system may hang during operating system shutdown. Be sure to set a value equal to or greater than 20000 (20 seconds).

  HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Control
  " WaitToKillServiceTimeout" (Type: REG_DWORD / default; 20000)

- You can use the above registry key to specify the wait time (ms) before the service is terminated in the shutdown sequence.

6．2．2．Checks before SVmco installation

This section describes the checks to make before SVmco installation.

- Confirming PSA-to-MMB communication LAN settings
- Confirming the services required for SVmco operation

- Confirming PSA-to-MMB communication LAN settings

For details on how to configure the PSA-to-MMB communication LAN, see 2.2.1 Configuring the PSA-to-MMB communication LAN.

Confirming the services required for SVmco operation

SNMP Service is required for SVmco operation. Add SNMP Service by using the following procedure.

Operations

1. Click [Start] - [Administrative Tools] - [Server Manager].

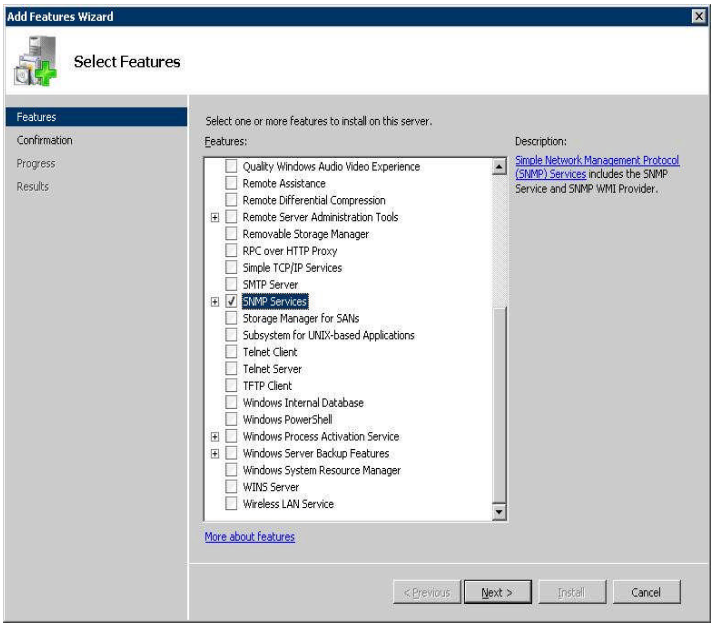
2. Select [Features] - [Add Function] - [SNMP Service] in the [Server Manager] window.

3. Confirm that the [SNMP Service] check box is checked. Then, click the [OK] button. The screen returns to the Windows Component Wizard.

Remarks

If the check box is not checked, SNMP Service has not been installed. To install SNMP Service, check the check box.

Click the [Next] button in the Windows Component Wizard window. Follow the instructions of the wizard for installation.



Select Features window

6．2．3．Installing SVmco

Install the SVmco package.

Prepare the ServerView Suite DVD supplied with the main unit.

Operations

1. Execute Tools\Japanese¥SVmco¥ SR_Windows\ ServerViewMissionCriticalOption_Win.exe.

   The following window appears for installation preparations.

2. The following window appears when installation preparations are completed. Click the [Next] button to proceed.

3. Specify the installation destination. Then, click the [Next] button.

   The default installation path for SVmco is Program Files\Fujitsu\ServerView Suite or Program Files(x86)\Fujitsu\ServerView Suite. To change the installation destination, click the [Browse] button and specify another installation destination.

4. After the installation is completed, the following window appears. Click the [Finish] button.

5. You may need to restart your computer. If so, a confirmation dialog box appears. The dialog box asks whether you want to restart the computer immediately.

   Check whether the computer can be restarted at this time. If the computer can be restarted, select the restart option and click the [Finish] button.

6．2．4．Automatic configuration during SVmco installation

This section describes the values automatically set for SVmco operation during SVmco installation.

Service settings

- ServerView Mission Critical Option
- PRIMEQUEST PEM Command Service
- PRIMEQUEST Environment Control Service

Environment variable settings

- PATH variables
  The values used for SVmco are added to existing PATH variables.
- SVmco_INSTALLPATH variable
  A new variable is added.

SNMP security settings

The SVmco installation configures SNMP Service security because SVmco needs to accept SNMP packets from the MMB.

The settings depend on the selected items on the [Security] tab in the [SNMP Service Properties] dialog box during SVmco installation.

- With [Accept SNMP packets from any host] selected:
  SNMP security is not configured.

- With [Accept SNMP packets from these hosts] selected:
  If neither the MMB IP address nor localhost is set, SNMP security is configured.

6．2．5．Settings after SVmco installation

This section describes the settings for items after SVmco installation.

- Setting the destinations of traps from a partition
- Configuring the Windows Firewall
- Setting Watchdog for monitoring after a STOP error (fatal system error)
- Installing the PSHED Plugin driver

Note

From [Properties] in the Event Viewer, do not change the operation in [When maximum log size is reached] for the system log or application log to [Do not overwrite events (clear log manually)]. Otherwise, after the log reaches the maximum log size, no errors are output to the log, so SVagent will be unable to detect any errors.

- Setting the destinations of traps from a partition

For details on how to set the destinations of traps from a partition, see 2.2.6 Setting the destinations of traps.

- Configuring the Windows Firewall

For details on how to configure the Windows Firewall, see 2.2.4 Configuring the Windows Firewall.

- Setting Watchdog for monitoring after a STOP error (fatal system error)

For details on how to set Watchdog for monitoring after a STOP error (fatal system error), see 2.2.7 Setting the Watchdog Timer for monitoring after a STOP error (fatal system error).

- Installing the PSHED Plugin driver

For details on how to install the PSHED Plugin driver, see 2.2.3 Installing the PSHED Plugin driver.

7. Messages

This section describes the meaning of the messages displayed by SVagent and SVmco, and how to handle the messages.

The messages are listed in ascending order of Event ID.

Event IDs are classified by the software that displays the messages and by driver support at the problem detection point.

The following terms indicate the severity of each message:

- Error: Serious system problem
- Warning: Caution or warning. The system can continue operating.
- Info: Notification event

Each letter shown in Action (any of R/M/T/S) indicates the action that SVagent and SVmco performs. The letter combination varies depending on the message.

- R: Sending REMCS data
- M: Sending e-mail
- T: Sending an SNMP trap
- S: Outputting syslog

If SVagent detects a problem in a PCI card and then again detects a problem in the same unit, it suppresses the actions of sending REMCS data, e-mail, and SNMP traps until acknowledge button is executed in [Driver Monitor] in SVOM.

If SVagent detects a problem in a disk device and then again detects a problem in the same unit within an hour, it suppresses the actions of sending REMCS data, e-mail, and SNMP traps.

7．1．SVmco Messages

This chapter lists SVmco log messages.

00002

system err() %s4, %s5, %s5, %s5, %s5

Meaning:

A SVmco system error was detected.

%s4 = Numerical value (1 to 3 digits)

%s5 = Numerical value (1 to 8 digits)

Corrective action:

Contact your sales representative or a field engineer.

Severity:

Error

Action:

(/ / /S)

00003

system err() [%s1:%s2] %s4, %s5, %s5, %s5, %s5

Meaning:

A SVmco system error was detected.

%s1 = Numerical value (1 digit)

%s2 = Numerical value (2 to 4 digits)

%s4 = Numerical value (1 to 3 digits)

%s5 = Numerical value (1 to 8 digits)

Corrective action:

Collect getosvmco. Contact your sales representative or a field engineer.

Severity:

Error

Action:

(/ / /S)

00051

lib call err [%s1:%s2] (%s5) %s5, %s4, %s5, %s5, %s5, %s5

Meaning:

An error occurred during a required library call at SVmco startup.

%s1 = Numerical value (1 digit)

%s2 = Numerical value (2 to 4 digits)

%s4 = Numerical value (1 to 3 digits)

%s5 = Numerical value (1 to 8 digits)

Corrective action:

Contact your sales representative or a field engineer.

Severity:

Error

Action:

(/ / /S)

00061

daemon normal end(etc/fujitsu/SVmco/global/pmsvmco.conf)

Meaning:

A SVmco daemon process terminated normally.

Corrective action:

No action is necessary.

Severity:

Info

Action:

(/ / /S)

00062

child process abnormal end [%s1:%s2] (%s3) %s1:%s4

Meaning:

An error occurred in a SVmco child process.

%s1 = Numerical value (1 digit)

%s2 = Numerical value (2 to 4 digits)

%s3 = Character string (2 to 7 characters)

%s4 = Numerical value (1 to 3 digits)

Corrective action:

Contact your sales representative or a field engineer.

Severity:

Warning

Action:

(/ / /S)

00063

child process %s6 time out [%s1:%s2] (%s3)

Meaning:

A SVmco child process became unresponsive.

%s1 = Numerical value (1 digit)

%s2 = Numerical value (2 to 4 digits)

%s3 = Character string (2 to 7 characters)

%s6 = stop or exec

Corrective action:

Contact your sales representative or a field engineer.

Severity:

Warning

Action:

(/ / /S)

00064

Start failed:Parameter error [%s1:%s2]

Meaning:

SVmco startup failed because of a parameter error.

%s1 = Numerical value (1 digit)

%s2 = Numerical value (2 to 4 digits)

Corrective action:

Contact your sales representative or a field engineer.

Severity:

Error

Action:

(/ / /S)

00065

Start failed (/etc/fujitsu/SVmco/global/pmsvmco.conf):system call error [%s1:%s2]

Meaning:

A system call error occurred at SVmco startup.

%s1 = Numerical value (1 digit)

%s2 = Numerical value (2 to 4 digits)

Corrective action:

Contact your sales representative or a field engineer.

Severity:

Error

Action:

(/ / /S)

00066

Start failed (/etc/fujitsu/SVmco/global/pmsvmco.conf):File can not open [%s1:%s2] (%s4)

Meaning:

A file required for SVmco startup could not be opened.

%s1 = Numerical value (1 digit)

%s2 = Numerical value (2 to 4 digits)

%s4 = Numerical value (1 to 3 digits)

Corrective action:

Contact your sales representative or a field engineer.

Severity:

Error

Action:

(/ / /S)

00067

Start failed (/etc/fujitsu/SVmco/global/pmsvmco.conf):Multiplex starting (%s4)

Meaning:

Multiple startups of SVmco occurred.

%s4 = Numerical value (1 to 3 digits)

Corrective action:

Contact your sales representative or a field engineer.

Severity:

Error

Action:

(/ / /S)

00068

Start failed (/etc/fujitsu/SVmco/global/pmsvmco.conf) %s1:%s4:child process was stopped

Meaning:

A SVmco child process was stopped.

%s1 = Numerical value (1 digit)

%s4 = Numerical value (1 to 3 digits)

Corrective action:

Contact your sales representative or a field engineer.

Severity:

Error

Action:

(/ / /S)

00069

startup succeeded (/etc/fujitsu/SVmco/global/pmsvmco.conf)

Meaning:

SVmco successfully started.

Corrective action:

No action is necessary.

Severity:

Info

Action:

(/ / /S)

00070

stop by Ctrl-C (/etc/fujitsu/SVmco/global/pmsvmco.conf)

Meaning:

A SVmco process was stopped by Ctrl+C.

Corrective action:

No action is necessary.

Severity:

Info

Action:

(/ / /S)

00071

cannot open file (/etc/fujitsu/SVmco/global/pmsvmco.conf)

Meaning:

A SVmco definition file could not be opened.

Corrective action:

Contact your sales representative or a field engineer.

Severity:

Error

Action:

(/ / /S)

00072

file format err (/etc/fujitsu/SVmco/global/pmsvmco.conf:line=%s4):line length over

Meaning:

Reading of a definition file required for SVmco operation failed, so SVmco could not start.

The character length of (file name:line=line number) is too long.

%s4 = Numerical value (1 to 3 digits)

Corrective action:

Contact your sales representative or a field engineer.

Severity:

Error

Action:

(/ / /S)

00073

file format err (/etc/fujitsu/SVmco/global/pmsvmco.conf:line=%s4):out of section

Meaning:

Reading of a definition file required for SVmco operation failed, so SVmco could not start.

(file name:line=line number) is data outside the section.

%s4 = Numerical value (1 to 3 digits)

Corrective action:

Contact your sales representative or a field engineer.

Severity:

Error

Action:

(/ / /S)

00074

file format err (/etc/fujitsu/SVmco/global/pmsvmco.conf:line=%s4):bad section

Meaning:

Reading of a definition file required for SVmco operation failed, so SVmco could not start.

The section format in (file name:line=line number) is incorrect.

%s4 = Numerical value (1 to 3 digits)

Corrective action:

Contact your sales representative or a field engineer.

Severity:

Error

Action:

(/ / /S)

00075

file read err (/etc/fujitsu/SVmco/global/pmsvmco.conf):not enough memory

Meaning:

The amount of allocatable memory is less than the memory size required for SVmco operation.

Corrective action:

Contact your sales representative or a field engineer.

Severity:

Error

Action:

(/ / /S)

00076

file format err (/etc/fujitsu/SVmco/global/pmsvmco.conf:line=%s4):section name overlaps

Meaning:

Reading of a definition file required for SVmco operation failed, so SVmco could not start.

The same section name as in (file name:line=line number) was detected.

%s4 = Numerical value (1 to 3 digits)

Corrective action:

Contact your sales representative or a field engineer.

Severity:

Error

Action:

(/ / /S)

00077

file format err (/etc/fujitsu/SVmco/global/pmsvmco.conf:line=%s4):bad member

Meaning:

Reading of a definition file required for SVmco operation failed, so SVmco could not start.

The member format in (file name:line=line number) is incorrect.

%s4 = Numerical value (1 to 3 digits)

Corrective action:

Contact your sales representative or a field engineer.

Severity:

Error

Action:

(/ / /S)

00078

file format err (/etc/fujitsu/SVmco/global/pmsvmco.conf:line=%s4):member name overlaps

Meaning:

Reading of a definition file required for SVmco operation failed, so SVmco could not start.

The same member name as in (file name:line=line number) was detected.

%s4 = Numerical value (1 to 3 digits)

Corrective action:

Contact your sales representative or a field engineer.

Severity:

Error

Action:

(/ / /S)

00079

**file read err
(/etc/fujitsu/SVmco/global/pmsvmco.conf) %s5:%s4:system error**

Meaning:

An error occurred during reading of a SVmco definition file.

%s4 = Numerical value (1 to 3 digits)

%s5 = Numerical value (1 to 8 digits)

Corrective action:

Contact your sales representative or a field engineer.

Severity:

Error

Action:

(/ / /S)

00080

**file format err
(/etc/fujitsu/SVmco/global/pmsvmco.conf) %s5:%s4:bad member**

Meaning:

Reading of a definition file required for SVmco operation failed, so SVmco could not start.

(file name) is an invalid member.

%s4 = Numerical value (1 to 3 digits)

%s5 = Numerical value (1 to 8 digits)

Corrective action:

Contact your sales representative or a field engineer.

Severity:

Error

Action:

(/ / /S)

00081

cannot change directory (/etc/fujitsu/SVmco/global/pmsvmco.conf) %s1:%s4

Meaning:

The work directory change in SVmco failed.

%s1 = Numerical value (1 digit)

%s4 = Numerical value (1 to 3 digits)

Corrective action:

Contact your sales representative or a field engineer.

Severity:

Error

Action:

(/ / /S)

00083

starting timeout (/etc/fujitsu/SVmco/global/pmsvmco.conf)

Meaning:

A time-out was detected at SVmco startup.

Corrective action:

Contact your sales representative or a field engineer.

Severity:

Error

Action:

(/ / /S)

00090

abnormal end of service was detected

Meaning:

A SVmco service terminated abnormally.

Corrective action:

Contact your sales representative or a field engineer.

Severity:

Error

Action:

(/ / /S)

00100

Stop failed:Parameter error [%s1:%s2]

Meaning:

SVmco stop failed because of a parameter error.

%s1 = Numerical value (1 digit)

%s2 = Numerical value (2 to 4 digits)

Corrective action:

Contact your sales representative or a field engineer.

Severity:

Error

Action:

(/ / /S)

00101

timeout occurred (/etc/fujitsu/SVmco/global/pmsvmco.conf)

Meaning:

A time-out occurred while SVmco was stopped.

Corrective action:

Contact your sales representative or a field engineer.

Severity:

Error

Action:

(/ / /S)

00102

**message err [%s1:%s2]
(/etc/fujitsu/SVmco/global/pmsvmco.conf) %s4**

Meaning:

An error occurred in message processing while SVmco was stopped.

%s1 = Numerical value (1 digit)

%s2 = Numerical value (2 to 4 digits)

%s4 = Numerical value (1 to 3 digits)

Corrective action:

Contact your sales representative or a field engineer.

Severity:

Error

Action:

(/ / /S)

00104

request is rejected [%s1:%s2] (%s5) %s5

Meaning:

A SVmco stop request was rejected.

%s1 = Numerical value (1 digit)

%s2 = Numerical value (2 to 4 digits)

%s5 = Numerical value (1 to 8 digits)

Corrective action:

Contact your sales representative or a field engineer.

Severity:

Error

Action:

(/ / /S)

00105

Under stop processing execution [%s1:%s2] (%s5) %s5

Meaning:

SVmco stop has been requested.

%s1 = Numerical value (1 digit)

%s2 = Numerical value (2 to 4 digits)

%s5 = Numerical value (1 to 8 digits)

Corrective action:

No action is necessary.

Severity:

Info

Action:

(/ / /S)

00111

lib call err [%s1:%s2] (/etc/fujitsu/SVmco/global/pmsvmco.conf) %s1:%s5, %s4, %s5, %s5, %s5, %s5, %s5

Meaning:

A library call failed during the SVmco stop process.

%s1 = Numerical value (1 digit)

%s2 = Numerical value (2 to 4 digits)

%s4 = Numerical value (1 to 3 digits)

%s5 = Numerical value (1 to 8 digits)

Corrective action:

Contact your sales representative or a field engineer.

Severity:

Error

Action:

(/ / /S)

00112

system call err [%s1:%s2] (%s5) %s1:%s4

Meaning:

A system call error occurred during the SVmco stop process.

%s1 = Numerical value (1 digit)

%s2 = Numerical value (2 to 4 digits)

%s4 = Numerical value (1 to 3 digits)

%s5 = Numerical value (1 to 8 digits)

Corrective action:

Contact your sales representative or a field engineer.

Severity:

Error

Action:

(/ / /S)

00129

stop succeeded (/etc/fujitsu/SVmco/global/pmsvmco.conf)

Meaning:

The SVmco stop process was successful.

Corrective action:

No action is necessary.

Severity:

Info

Action:

(/ / /S)

00130

stopped by Ctrl-C (/etc/fujitsu/SVmco/global/pmsvmco.conf)

Meaning:

The SVmco stop process was stopped by Ctrl+C.

Corrective action:

No action is necessary.

Severity:

Info

Action:

(/ / /S)

00131

cannot open file (/etc/fujitsu/SVmco/global/pmsvmco.conf)

Meaning:

The definition file for the SVmco stop process could not be opened.

Corrective action:

Contact your sales representative or a field engineer.

Severity:

Error

Action:

(/ / /S)

00132

file format err (/etc/fujitsu/SVmco/global/pmsvmco.conf:line=%s4) :line length over

Meaning:

Reading of a definition file required for SVmco operation failed, so SVmco could not start.

The character length of (file name:line=line number) is too long.

%s4 = Numerical value (1 to 3 digits)

Corrective action:

Contact your sales representative or a field engineer.

Severity:

Error

Action:

(/ / /S)

00133

file format err (/etc/fujitsu/SVmco/global/pmsvmco.conf:line=%s4) :out of section

Meaning:

Reading of a definition file required for SVmco operation failed, so SVmco could not start.

(file name:line=line number) is data outside the section.

%s4 = Numerical value (1 to 3 digits)

Corrective action:

Contact your sales representative or a field engineer.

Severity:

Error

Action:

(/ / /S)

00134

file format err (/etc/fujitsu/SVmco/global/pmsvmco.conf:line=%s4) :bad section

Meaning:

Reading of a definition file required for SVmco operation failed, so SVmco could not start.

The section format in (file name:line=line number) is incorrect.

%s4 = Numerical value (1 to 3 digits)

Corrective action:

Contact your sales representative or a field engineer.

Severity:

Error

Action:

(/ / /S)

00135

file read err (/etc/fujitsu/SVmco/global/pmsvmco.conf):not enough memory

Meaning:

The amount of allocatable memory is less than the memory size required for the SVmco stop process.

Corrective action:

Contact your sales representative or a field engineer.

Severity:

Error

Action:

(/ / /S)

00136

file format err (/etc/fujitsu/SVmco/global/pmsvmco.conf:line=%s4) :section name overlaps

Meaning:

Reading of a definition file required for SVmco operation failed, so SVmco could not start.

The same section name was detected in (file name:line=line number).

%s4 = Numerical value (1 to 3 digits)

Corrective action:

Contact your sales representative or a field engineer.

Severity:

Error

Action:

(/ / /S)

00137

file format err (/etc/fujitsu/SVmco/global/pmsvmco.conf:line=%s4) :bad member

Meaning:

Reading of a definition file required for SVmco operation failed, so SVmco could not start.

The member format in (file name:line=line number) is incorrect.

%s4 = Numerical value (1 to 3 digits)

Corrective action:

Contact your sales representative or a field engineer.

Severity:

Error

Action:

(/ / /S)

00138

file format err (/etc/fujitsu/SVmco/global/pmsvmco.conf:line=%s4) :member name overlaps

Meaning:

The format of the definition file for the SVmco stop process is incorrect.

The same member name as in (file name:line=line number) was detected.

%s4 = Numerical value (1 to 3 digits)

Corrective action:

Contact your sales representative or a field engineer.

Severity:

Error

Action:

(/ / /S)

00139

**file read err
(/etc/fujitsu/SVmco/global/pmsvmco.conf) %s5:%s4:system error**

Meaning:

An error occurred during reading of the definition file for the SVmco stop process.

%s4 = Numerical value (1 to 3 digits)

%s5 = Numerical value (1 to 8 digits)

Corrective action:

Contact your sales representative or a field engineer.

Severity:

Error

Action:

(/ / /S)

00140

file format err
(/etc/fujitsu/SVmco/global/pmsvmco.conf)%s5:%s4 :no member

Meaning:

Reading of a definition file required for SVmco operation failed, so SVmco could not start.

A required member could not be found in (file name).

%s4 = Numerical value (1 to 3 digits)

%s5 = Numerical value (1 to 8 digits)

Corrective action:

Contact your sales representative or a field engineer.

Severity:

Error

Action:

(/ / /S)

00141

cmd_path length over

Meaning:

The path length of the command used for the SVmco stop process is too long.

Corrective action:

Contact your sales representative or a field engineer.

Severity:

Error

Action:

(/ / /S)

00142

cmd_path disconnected [%s1:%s2] %s1:%s4

Meaning:

The command path used for the SVmco stop process was disconnected.

%s1 = Numerical value (1 digit)

%s2 = Numerical value (2 to 4 digits)

%s4 = Numerical value (1 to 3 digits)

Corrective action:

Contact your sales representative or a field engineer.

Severity:

Error

Action:

(/ / /S)

00143

target process does not exist [%s1:%s2] (/etc/fujitsu/SVmco/global/pmsvmco.conf)

Meaning:

The process that is to be stopped during the SVmco stop process could not be found.

%s1 = Numerical value (1 digit)

%s2 = Numerical value (2 to 4 digits)

Corrective action:

Contact your sales representative or a field engineer.

Severity:

Error

Action:

(/ / /S)

00399

(%s1-%s2) Process Manager Down:Err (i_err=%s4, os_err=%s5, detail(1=%s5, 2=%s5, 3=%s5))

Meaning:

SVmco Process Manager failed.

%s1 = Numerical value (1 digit)

%s2 = Numerical value (2 to 4 digits)

%s4 = Numerical value (1 to 3 digits)

%s5 = Numerical value (1 to 8 digits)

Corrective action:

Contact your sales representative or a field engineer.

Severity:

Error

Action:

(/ / /S)

00502

MMB connected

Meaning:

An MMB has been connected for communication.

Corrective action:

No action is necessary.

Severity:

Info

Action:

(/ / /S)

00504

MMB connection failed

Meaning:

Operation was degraded because the connection to the MMB failed. The connection will be retried.

Corrective action:

Check the IP address setting for the PSA-to-MMB communication LAN.

Severity:

Warning

Action:

(/ / /S)

00515

Partition IP address of Management LAN is not found

Meaning:

The IP address of the partition that is used for the PSA-to-MMB communication LAN is not set.

Corrective action:

Set the IP address for the PSA-to-MMB communication LAN.

Severity:

Warning

Action:

(/ / /S)

01190

setting error (%1)

Meaning:

The preparation process for setting PANIC as the MMB system status at operating system hang failed.

%1 = Numerical value (1 to 8 digits)

Corrective action:

Contact your sales representative or a field engineer.

Severity:

Warning

Action:

(/ / /S)

01191

configuration file error (%1,%2)

Meaning:

The file that contains the Software Watchdog timer setting used for operating system hang has a description error. The setting is invalid. (The Software Watchdog timer is stopped.)

%1 = File name (character string. Full path)

%2 = Detailed error code (4-digit numerical value)

1176: The configuration file is invalid. Confirm the existence and format of the configuration file.

1177: A setting value is invalid. Confirm the setting value.

1178: A setting value is outside its range. Check the range of the setting value.

1179: No section/member was found. Confirm that the section/member definition is correct.

Corrective action:

Check the configuration file. If the problem persists, contact your sales representative or a field engineer.

Severity:

Warning

Action:

(/ / /S)

02700

initialization failed

Meaning:

Initialization failed.

Corrective action:

Confirm that the user logged in as a superuser. Also confirm that SVmco is correctly installed.

Severity:

Error

Action:

(/ / /S)

02701

version file read error

(filepath=%1 lineno=%2 lid=%3 value=%4)

Meaning:

Reading of the version number failed.

%1 = Character string

%2 = Numerical value

%3 = Numerical value

%4 = Numerical value

Corrective action:

Confirm that the user logged in as a superuser. Also confirm that SVmco is correctly installed.

Severity:

Error

Action:

(/ / /S)

02702

version file format error

(filepath=%1 lineno=%2 errid=%3 lid=%4 value=%5)

Meaning:

A version information format error was detected.

%1 = Character string

%2 = Numerical value

%3 = Numerical value

%4 = Numerical value

%5 = Numerical value

Corrective action:

Confirm that SVmco is correctly installed.

Severity:

Error

Action:

(/ / /S)

02703

internal error (mode=%1)

Meaning:

An internal inconsistency occurred.

%1 = Numerical value

Corrective action:

Contact your sales representative or a field engineer.

Severity:

Error

Action:

(/ / /S)

02704

updating filter file

Meaning:

The filter version number indicates that the filter is to be updated.

Corrective action:

No action is necessary.

Severity:

Info

Action:

(/ / /S)

02705

unnecessary to update filter file

Meaning:

The filter update is unnecessary because the filter version number of the update target is older than that currently applied.

Corrective action:

No action is necessary.

Severity:

Info

Action:

(/ / /S)

02706

directory doesn't exist

Meaning:

The directory required for updating a filter does not exist.

Corrective action:

Confirm that the specified directory exists. Also confirm that SVmco is correctly installed.

Severity:

Error

Action:

(/ / /S)

02707

failed to update filter file

Meaning:

The filter update did not complete normally.

Corrective action:

Confirm that the user logged in as a superuser. Also confirm that SVmco is correctly installed.

Severity:

Error

Action:

(/ / /S)

02708

normally end

Meaning:

The filter update preparation or filter update completed normally.

Corrective action:

No action is necessary.

Severity:

Info

Action:

(/ / /S)

02709

failed to update filter file

Meaning:

The filter update did not complete normally.

Corrective action:

Confirm that the user logged in as a superuser. Also confirm that SVmco is correctly installed.

Severity:

Error

Action:

(/ / /S)

02716

illegal version (value1=%1 lid=%2)

Meaning:

The value specified for the version number is outside its range.

%1 = Numerical value

%2 = Character string

%3 = Character string

Corrective action:

The provided filter definition may be incorrect. Contact your sales representative or a field engineer.

Severity:

Error

Action:

(/ / /S)

02717

illegal version (lid=%1 value1=%2 value2=%3)

Meaning:

The value specified for the version number is invalid.

%1 = Numerical value

%2 = Character string

%3 = Character string

Corrective action:

The provided filter definition may be incorrect. Contact your sales representative or a field engineer.

Severity:

Error

Action:

(/ / /S)

02718

cannot update filter file

Meaning:

Filters cannot be updated because SVmco is running.

Corrective action:

Stop SVmco. Then, try again.

Severity:

Error

Action:

(/ / /S)

02800

Could not load %s1:%s2

Meaning:

Loading of a driver required for SVmco operation (modprobe) failed.

%s1 = Name of the driver for which loading failed (sg or mptctl)

%s2 = Return value of modprobe

Corrective action:

Contact your sales representative or a field engineer.

Severity:

Warning

Action:

(/ / /S)

02801

Initialization Error %s1:%s2

Meaning:

Reading of SDR, FRU, and other files failed during SVmco initialization.

%s1 = Numerical value (1 digit)

%s2 = Numerical value (3 digits)

Corrective action:

Download the MMB system event log. Collect the SVmco data for investigation (getosvmco). Then, contact your sales representative or a field engineer.

Severity:

Error

Action:

(/ / /S)

02899

disabled the SELinux function. This setting will take effect after reboot.

Meaning:

The SELinux function was disabled during SVmco installation or update.

Corrective action:

No action is necessary.

Severity:

Info

Action:

(/ / /S)

04000

system err [%1:%2] %3,%4,%5,%6,%7

Meaning:

A SVmco system error was detected.

%1 = Numerical value (1 to 2 digits)

%2 = Numerical value (1 to 4 digits)

%3 = Numerical value (1 to 3 digits)

%4 = Numerical value (1 to 10 digits)

%5 = Numerical value (1 to 10 digits)

%6 = Numerical value (1 to 10 digits)

%7 = Numerical value (1 to 10 digits)

Corrective action:

Contact your sales representative or a field engineer.

Severity:

Error

Action:

(/ / /S)

04001

system err [%1:%2] %3

Meaning:

A SVmco system error was detected.

%1 = Numerical value (1 to 2 digits)

%2 = Numerical value (1 to 4 digits)

%3 = Numerical value (1 to 10 digits)

Corrective action:

Contact your sales representative or a field engineer.

Severity:

Error

Action:

(/ / /S)

04002

Start failed :system call error [%1:%2] %3

Meaning:

A system call error occurred at SVmco startup.

%1 = Numerical value (1 to 2 digits)

%2 = Numerical value (1 to 4 digits)

%3 = Numerical value (1 to 10 digits)

Corrective action:

Contact your sales representative or a field engineer.

Severity:

Error

Action:

(/ / /S)

04004

starting timeout (%1)

Meaning:

A time-out was detected at SVmco startup.

%1 = Character string (1 to 256 characters)

Corrective action:

Contact your sales representative or a field engineer.

Severity:

Warning

Action:

(/ / /S)

04005

Start failed :stop request (%1) [%2:%3]

Meaning:

A service stop request was accepted during SVmco startup.

%1 = Character string (1 to 256 characters)

%2 = Numerical value (1 to 2 digits)

%3 = Numerical value (1 to 4 digits)

Corrective action:

No action is necessary.

Severity:

Info

Action:

(/ / /S)

04007

Start failed: cannot execute process (%1) [%2:%3] %4

Meaning:

An error occurred at SVmco process startup.

%1 = Character string (1 to 256 characters)

%2 = Numerical value (1 to 2 digits)

%3 = Numerical value (1 to 4 digits)

%4 = Numerical value (1 to 10 digits)

Corrective action:

Contact your sales representative or a field engineer.

Severity:

Error

Action:

(/ / /S)

04008

cannot open file (%1)

Meaning:

A SVmco definition file cannot be opened.

%1 = Character string (1 to 256 characters)

Corrective action:

Contact your sales representative or a field engineer.

Severity:

Error

Action:

(/ / /S)

04009

file read err (%1): not enough memory

Meaning:

The amount of allocatable memory is less than the memory size required for SVmco operation.

%1 = Character string (1 to 256 characters)

Corrective action:

Contact your sales representative or a field engineer.

Severity:

Error

Action:

(/ / /S)

04010

Start failed (%1): configure error [%2:%3] %4

Meaning:

An error was detected in a setting value of the SVmco definition file.

%1 = Character string (1 to 256 characters)

%2 = Numerical value (1 to 2 digits)

%3 = Numerical value (1 to 4 digits)

%4 = Numerical value (1 to 10 digits)

Corrective action:

Contact your sales representative or a field engineer.

Severity:

Error

Action:

(/ / /S)

04011

Start failed (%1) %2:%3:child process was stopped

Meaning:

An error was detected in a setting value of the SVmco definition file.

%1 = Character string (1 to 256 characters)

%2 = Numerical value (1 digit)

%3 = Character string (1 to 10 hexadecimal digits)

Corrective action:

Contact your sales representative or a field engineer.

Severity:

Error

Action:

(/ / /S)

04012

lib call err [%1:%2] %3,%4,%5,%6,%7,%8

Meaning:

An error occurred during a required library call at SVmco startup.

%1 = Numerical value (1 to 2 digits)

%2 = Numerical value (1 to 4 digits)

%3 = Numerical value (1 to 10 digits)

%4 = Numerical value (1 to 3 digits)

%5 = Numerical value (1 to 10 digits)

%6 = Numerical value (1 to 10 digits)

%7 = Numerical value (1 to 10 digits)

%8 = Numerical value (1 to 10 digits)

Corrective action:

Contact your sales representative or a field engineer.

Severity:

Error

Action:

(/ / /S)

04013

cannot change directory %1:%2

Meaning:

The work directory change in SVmco failed.

%1 = Numerical value (1 to 10 digits)

%2 = Numerical value (1 to 10 digits)

Corrective action:

Contact your sales representative or a field engineer.

Severity:

Error

Action:

(/ / /S)

04018

child process abnormal end [%1:%2] (%3) %4:%5

Meaning:

A SVmco child process terminated abnormally.

%1 = Character string (1 to 256 characters)

%2 = Numerical value (1 digit)

%3 = Character string (1 to 10 hexadecimal digits)

%4 = Numerical value (1 to 2 digits)

%5 = Numerical value (1 to 4 digits)

Corrective action:

Contact your sales representative or a field engineer.

Severity:

Error

Action:

(/ / /S)

04019

service was started

Meaning:

A SVmco service was started.

Corrective action:

No action is necessary.

Severity:

Info

Action:

(/ / /S)

04020

service was stopped

Meaning:

A SVmco service was stopped.

Corrective action:

No action is necessary.

Severity:

Info

Action:

(/ / /S)

04400

service was started

Meaning:

A service was started.

Corrective action:

No action is necessary.

Severity:

Info

Action:

(/ / /S)

04401

service was stopped

Meaning:

A service was stopped.

Corrective action:

No action is necessary.

Severity:

Info

Action:

(/ / /S)

04402

Start failed: stop request (%s1) [%s1:%s2]

Meaning:

A service stop request was accepted during SVmco startup.

%s1 = Character string (1 to 256 characters)

%s2 = Numerical value (1 to 2 digits)

%s3 = Numerical value (1 to 4 digits)

Corrective action:

No action is necessary.

Severity:

Info

Action:

(/ / /S)

04403

system err [%s1:%s2] %s5

Meaning:

A SVmco system error was detected.

%s1 = Numerical value (1 digit)

%s2 = Numerical value (2 to 4 digits)

%s5 = Numerical value (1 to 8 digits)

Corrective action:

Collect getosvmco. Contact your sales representative or a field engineer.

Severity:

Error

Action:

(/ / /S)

04405

lib call err [%s1:%s2] %s4, %s5, %s5, %s5, %s5

Meaning:

A library call failed.

%s1 = Numerical value (1 digit)

%s2 = Numerical value (2 to 4 digits)

%s4 = Numerical value (1 to 3 digits)

%s5 = Numerical value (1 to 8 digits)

Corrective action:

Collect getosvmco. Contact your sales representative or a field engineer.

Severity:

Error

Action:

(/ / /S)

04406

environmental error [%s1:%s2] %s4, %s5, %s5, %s5, %s5

Meaning:

An error was detected in the operating environment.

%s1 = Numerical value (1 digit)

%s2 = Numerical value (2 to 4 digits)

%s4 = Numerical value (1 to 3 digits)

%s5 = Numerical value (1 to 8 digits)

Corrective action:

Collect getosvmco. Contact your sales representative or a field engineer.

Severity:

Error

Action:

(/ / /S)

04407

not enough memory

Meaning:

The amount of allocatable memory is less than the memory size required for SVmco operation.

Corrective action:

Collect getosvmco. Contact your sales representative or a field engineer.

Severity:

Error

Action:

(/ / /S)

04408

configure error (%s1) [%s1:%s2] %s5

Meaning:

An error was detected in a setting value of the SVmco definition file.

%s1 = Character string (1 to 256 characters)

%s2 = Numerical value (1 to 2 digits)

%s3 = Numerical value (1 to 4 digits)

%s5 = Numerical value (1 to 8 digits)

Corrective action:

Collect getosvmco. Contact your sales representative or a field engineer.

Severity:

Error

Action:

(/ / /S)

04409

Start failed (%s1) [%s1:%s2] %s5

Meaning:

Process startup failed.

%s1 = Character string (1 to 256 characters)

%s2 = Numerical value (1 to 2 digits)

%s3 = Numerical value (1 to 4 digits)

%s5 = Numerical value (1 to 8 digits)

Corrective action:

Collect getosvmco. Contact your sales representative or a field engineer.

Severity:

Error

Action:

(/ / /S)

04410

starting timeout (%s)

Meaning:

A time-out was detected at SVmco startup.

%s1 = Character string (1 to 256 characters)

Corrective action:

Collect getosvmco. Contact your sales representative or a field engineer.

Severity:

Error

Action:

(/ / /S)

04411

child process abnormal end (%s1) [%s2:%s3] %s4:0x%s5

Meaning:

A child process terminated abnormally.

%s1 = Character string (1 to 256 characters)

%s2 = Numerical value (1 to 2 digits)

%s3 = Numerical value (1 to 4 digits)

%s4 = Numerical value (1 digit)

%s5 = Hexadecimal numerical value (1 to 8 digits)

Corrective action:

Collect getosvmco. Contact your sales representative or a field engineer.

Severity:

Error

Action:

(/ / /S)

04412

Initialization Error %s1

Meaning:

Reading of SDR, FRU, and other files failed during SVmco initialization.

%s1 = Numerical value (4 digit)

Corrective action:

Download the MMB system event log. Collect the SVmco data for investigation (getosvmco). Then, contact your sales representative or a field engineer.

Severity:

Error

Action:

(/ / /S)

05308

FJSVfefpcl driver open error

Meaning:

An ioctl error occurred when it was issued to fefpcl, or the state of fefpcl is abnormal. The error is reported in the ioctl results.

Corrective action:

Contact your sales representative or a field engineer.

Severity:

Warning

Action:

(/ / /S)

04802

management IP wrong format. Data=file_no;%d1, line:%d2, data:"%s"

Meaning:

The configuration file of the dedicated LAN for management contains an error.

%d1 = Numerical value (Decimal)

%d2 = Numerical value (Decimal)

%s = Cause details

Corrective action:

If the error is "format err," correct the description in the configuration file, and restart SVmco.

If the problem persists, collect getosvmco, and contact your sales representative or a field engineer.

Severity:

Warning

Action:

(/ / /S)

05380

configuration file error (%1,%2)

Meaning:

There is no definition file for the half/full down detection threshold setting for the PRIMECLUSTER linkage function, or the file has a description error. The operation is performed with the default settings.

%1 = File name (character string. Full path)

%2 = Detailed error code (4-digit numerical value)

5408: A configuration file error occurred. Confirm the existence and format of the configuration file.

5409: No section/member was found. Confirm that the section/member definition is correct.

5410: The magnitude relationship between the members is invalid. Check the magnitude relationship between the setting values.

5411: A setting value is invalid. Confirm the setting value.

5412: A setting value is outside its range. Check the range of the setting value.

Corrective action:

Check the configuration file. If the problem persists, contact your sales representative or a field engineer.

Severity:

Warning

Action:

(/ / /S)

05402

FJSVfefpcl is not installed

Meaning:

The fefpcl driver is not installed.

Corrective action:

If the driver is not installed, install it. If the driver is already installed or if the problem persists after driver installation, contact your sales representative or a field engineer.

Severity:

Info

Action:

(/ / /S)

06252

MMB-PSA IP wrong format. Data=file_no;%d1, line:%d2, data:"%s"

Meaning:

The configuration file of the dedicated LAN for MMB-PSA communication contains an error.

%d1 = Numerical value (Decimal)

%d2 = Numerical value (Decimal)

%s = Cause details

Corrective action:

If the error is "format err," correct the description in the configuration file, and restart SVmco.

If the error is "read err," confirm that the configuration file exists and that the user has the read privilege.

If the problem persists, collect getosvmco, and contact your sales representative or a field engineer.

Severity:

Warning

Action:

(/ / /S)

06297

hotplug %s1 event %s2 hasn't set

Meaning:

A hotplug event was accepted, but the required data is not set as an environment variable.

%s1 = pci or scsi

%s2 = Environment variable name

Corrective action:

Contact your sales representative or a field engineer.

Severity:

Warning

Action:

(/ / /S)

06298

%s1 hotplug event %s2 doesn't correct. data:%s3

Meaning:

A hotplug event was accepted, but the format of the required data reported as an environment variable is incorrect.

%s1 = pci or scsi

%s2 = Environment variable name

%s3 = Format of the environment variable value

Corrective action:

Contact your sales representative or a field engineer.

Severity:

Warning

Action:

(/ / /S)

08401

Couldn't create the device object

Meaning:

Creation of a driver object failed.

Corrective action:

No action is necessary.

Severity:

Info

Action:

(/ / /S)

08402

Couldn't create symbolic link

Meaning:

Creation of a driver object failed.

Corrective action:

No action is necessary.

Severity:

Info

Action:

(/ / /S)

08403

Request device type error

Meaning:

The DeviceIoControl process failed.

Corrective action:

No action is necessary.

Severity:

Info

Action:

(/ / /S)

08404

Query registry value failed

Meaning:

The DeviceIoControl process failed.

Corrective action:

No action is necessary.

Severity:

Info

Action:

(/ / /S)

08405

Unrecognized control code

Meaning:

DeviceIoControl was called from a user space application with an unrecognized ControlCode value.

Corrective action:

No action is necessary.

Severity:

Info

Action:

(/ / /S)

08406

Register Clash Callback failed

Meaning:

The DeviceIoControl process failed.

Corrective action:

No action is necessary.

Severity:

Info

Action:

(/ / /S)

08504

Couldn't create the device object

Meaning:

Creation of a driver object failed.

Corrective action:

No action is necessary.

Severity:

Info

Action:

(/ / /S)

08505

Couldn't create symbolic link

Meaning:

Creation of a driver object failed.

Corrective action:

No action is necessary.

Severity:

Info

Action:

(/ / /S)

08506

Couldn't get IRP stack location

Meaning:

The DeviceIoControl process failed.

Corrective action:

No action is necessary.

Severity:

Info

Action:

(/ / /S)

08507

Couldn't get pci configuration data

Meaning:

Reading of the PCIConfiguration space failed.

Corrective action:

No action is necessary.

Severity:

Info

Action:

(/ / /S)

08508

Couldn't set pci configuration data

Meaning:

Writing to the PCIConfiguration space failed.

Corrective action:

No action is necessary.

Severity:

Info

Action:

(/ / /S)

08509

Unrecognized control code

Meaning:

DeviceIoControl was called from a user space application with an unrecognized ControlCode value.

Corrective action:

No action is necessary.

Severity:

Info

Action:

(/ / /S)

09100

(%1-%2) System Status is changed in the "OS Running": succeeded

Meaning:

The system status changed.

%1 = Numerical value (Decimal)

%2 = Numerical value (Decimal)

Corrective action:

No action is necessary.

Severity:

Info

Action:

(/ / /S)

09101

(%1-%2) System Status is changed in the "OS Running": %s %d

Meaning:

The system status change failed.

%1 = Decimal

%2 = Decimal

%s = System error

retry over

request error

time-out

failed

%d = Decimal

Corrective action:

Contact your sales representative or a field engineer.

Severity:

Warning

Action:

(/ / /S)

09110

(%1-%2) initialization of a library() failed : err(i_err=%d, os_err=%d, detail(1=%d, 2=%d, 3=%d))

Meaning:

An error occurred in initial processing.

%1 = Decimal

%2 = Decimal

%d = Decimal

Corrective action:

Contact your sales representative or a field engineer.

Severity:

Error

Action:

(/ / /S)

09111

(%1-%2) file %a error(%s) failed : err(i_err=%d, os_err=%d, detail(1=%d, 2=%d, 3=%d))

Meaning:

A file processing error occurred.

%1 = Decimal

%2 = Decimal

%a = open, read, or close

%s = Character string

%d = Decimal

Corrective action:

Contact your sales representative or a field engineer.

Severity:

Error

Action:

(/ / /S)

09120

(%1-%2) System Error() failed : err=%d

Meaning:

When SVmco executed a Windows API, the API returned abnormally.

%1 = Decimal

%2 = Decimal

%d = Decimal

Corrective action:

Contact your sales representative or a field engineer.

Severity:

Error

Action:

(/ / /S)

09130

(%1-%2)System Error.

Meaning:

An error occurred in the Service Manager process.

%1 = Decimal

%2 = Decimal

Corrective action:

Contact your sales representative or a field engineer.

Severity:

Error

Action:

(/ / /S)

09131

(%1-%2) path went wrong. (%s)

Meaning:

An error occurred in initial processing.

%1 = Decimal

%2 = Decimal

%s = Character string

Corrective action:

Contact your sales representative or a field engineer.

Severity:

Error

Action:

(/ / /S)

09132

(%1-%2) change of a directory went wrong. : %s

Meaning:

An error occurred in initial processing.

%1 = Decimal

%2 = Decimal

%s = Character string

Corrective action:

Contact your sales representative or a field engineer.

Severity:

Error

Action:

(/ / /S)

09133

**(%1-%2) initialization of a log went wrong. (%s, %s) :
err(i_err=%d, os_err=%d, detail(1=%d, 2=%d, 3=%d))**

Meaning:

An error occurred in initial processing.

%1 = Decimal

%2 = Decimal

%d = Decimal

%s = Character string

Corrective action:

Contact your sales representative or a field engineer.

Severity:

Error

Action:

(/ / /S)

7．2．SVagent Messages

This chapter lists SVagent messages.

Messages described in this chapter is event messages for REMCS and Mail Report on PRIMEQUEST.

The Event format which are output to Syslog (Linux)/ EventLog (Windows) are described as the following format.

And this format include messages desribed in this chapter in “Event Detail”.

- Output format

1) Error

Driver Monitoring error event at server '%s1':'%s2'

%s1:host name(Linux)、Computer name(Windows)

%s2:Event Detail

2) Warning

Driver Monitoring warning event at server '%s1':'%s2'

%s1:host name(Linux)、Computer name(Windows)

%s2:Event Detail

<Example>

Driver Monitoring warning event at server WIN-Q77EVKAG7J3: WS08_R2_x64

(PID=1) 21700, IOB#1-PCIC#7-FUNC#0 e1000_express:Intel(R) PRO/1000 PT Dual

Port Server Adapter #2 Adapter or Software error

(Adapter not found)

7．2．1．S.M.A.R.T. messages

This section lists S.M.A.R.T. messages.

10501

Failure Prediction Threshold Exceeded vendor=%v model=%m serial-no=%ser

Meaning:

S.M.A.R.T. detected an exceeded threshold in a message notification from a driver.

%v: (Example) FUJITSU

%m: (Example) MAP3367NC

%ser: (Example) 01234567

Corrective action:

The relevant disk must be replaced.

Severity:

Warning

Action:

(R/M/T/S)

7．2．2．RAS Support Service messages

This section lists RAS support service messages.

10600

RASStatusCheck:%2 RAID BBU announcement of the remaining time of the operating life vendor-id=1000 device-id=%d revision=%r

Meaning:

This message is a reminder indicating the battery unit on a RAID card will soon be due for replacement.

%2: Card name

(Linux example)RAID Card Li-Ion 1

(Windows example)RAID_Card#01

%d: (Example) 0079

%r: Numerical value (1 to 3 digits)

Corrective action:

Start the GUI of RAS Support Service. Check the service life components. Replace the relevant component.

Severity:

Warning

Action:

(R/M/T/S)

10601

RASStatusCheck:%2 RAID BBU exceeded the operating life vendor-id=1000 device-id=%d revision=%r

Meaning:

This message prompts replacement of the battery unit on a RAID card.

%2: Card name

(Linux example)RAID Card Li-Ion 1

(Windows example)RAID_Card#01

%d: (Example) 0079

%r: Numerical value (1 to 3 digits)

Corrective action:

Start the GUI of RAS Support Service. Check the service life components. Replace the relevant component.

Severity:

Error

Action:

(R/M/T/S)

10602

RASStatusCheck: UPS BBU announcement of the remaining time of the operating life

Meaning:

This message is a reminder indicating the battery unit on a UPS will soon be due for replacement.

Corrective action:

Replace the relevant UPS battery.

Severity:

Warning

Action:

(R/M/T/S)

10603

RASStatusCheck: UPS BBU exceeded the operating life

Meaning:

This message prompts replacement of the battery unit on a UPS.

Corrective action:

Replace the relevant UPS battery.

Severity:

Error

Action:

(R/M/T/S)

7．2．3．SVAgents external storage (hard disk cabinet) unit-related messages

This section lists ServerView Agents external storage (hard disk cabinet) unit-related messages.

10700

SV Agents:Adapter error (Fan will fail in near future)

Meaning:

A fan error may occur.

Corrective action:

A power supply unit contains the mounted fan. Replace the power supply unit soon.

Note

Do not operate the system while the cover is removed. Fan operation is not guaranteed.

Severity:

Warning

Action:

(R/M/T/S)

10701

SV Agents:Adapter error (Fan failed)

Meaning:

A fan error occurred.

Corrective action:

A power supply unit contains the mounted fan. Replace the power supply unit.

Note

Do not operate the system while the cover is removed. Fan operation is not guaranteed.

Severity:

Warning

Action:

(R/M/T/S)

10702

SV Agents:Adapter error (The redundant fan failed)

Meaning:

A fan error occurred. Consequently, the fan on only one side is operating.

Corrective action:

A power supply unit contains the mounted fan. Replace the power supply unit.

Note

Do not operate the system while the cover is removed. Fan operation is not guaranteed.

Severity:

Warning

Action:

(R/M/T/S)

10703

SV Agents:Adapter error (Temperature has reached the warning level)

Meaning:

The temperature reached the warning level.

Corrective action:

Check the condition of the fans. Reduce the ambient temperature.

Note

Do not operate the system while the cover is removed. Fan operation is not guaranteed.

Severity:

Warning

Action:

(R/M/T/S)

10704

SV Agents:Adapter error (Temperature has reached the critical level)

Meaning:

The temperature reached the critical level.

Corrective action:

Check the ambient temperature. If no problem is found, confirm that the fans are operating normally.

Note

Do not operate the system while the cover is removed. Fan operation is not guaranteed.

Severity:

Warning

Action:

(R/M/T/S)

10705

SV Agents:Adapter error (Insufficiant operating power supplies available)

Meaning:

The power supply is insufficient.

Corrective action:

The required power is not supplied. Check the power supplies.

Severity:

Warning

Action:

(R/M/T/S)

10706

SV Agents:Adapter error (Power supply failed)

Meaning:

A power supply unit error occurred.

Corrective action:

Check the connection of the power supply unit. If no problem is found, replace the power supply unit.

Severity:

Warning

Action:

(R/M/T/S)

10707

SV Agents:Adapter error (Redundant power supply failed)

Meaning:

A fan error occurred. Consequently, the fan on only one side is operating.

Corrective action:

Replace the faulty power supply unit.

Severity:

Warning

Action:

(R/M/T/S)

10708

SV Agents:Adapter error (Power supply redundancy lost)

Meaning:

Redundancy of the power supply units could not be recognized.

Corrective action:

Check both power supply units, and replace the faulty one.

Severity:

Warning

Action:

(R/M/T/S)

7．2．4．LAN-related messages [Linux]

This section lists LAN driver messages in the following order:

Contents

- Common
- e1000-related
- e1000e-related
- igb-related
- ixgbe-related

- Common

This section lists LAN common messages.

11000

ethx Transmit timed out vendor-id=%vi device-id=%d revision=%r

Meaning:

A transmission time-out occurred.

(Time-out period: 5 seconds for e1000)

%vi: (Example) 8086

%d: (Example) 1209

%r: Numerical value (1 to 3 digits)

Corrective action:

Check whether communication is possible through the device that output this message. If communication is possible, no action is necessary.

If communication is not possible, collect the data for investigation (dump or log), and replace the adapter.

Severity:

Error

Action:

(R/M/T/S)

- e1000-related

This section lists e1000-related messages.

11200

e1000:xxxx:xx:xx.x Adapter or Software error (probe failed)

Meaning:

Initialization of the adapter failed.

Corrective action:

Take corrective action as described in the messages (11201 to 11203) that were output just before this message. If the problem persists, contact your sales representative or a field engineer.

Severity:

Warning

Action:

(/ /T/S)

11201

e1000:xxxx:xx:xx.x Adapter or Software error (No usable DMA configuration; aborting)

Meaning:

DMA cannot be used on this system.

Corrective action:

Collect the data for investigation (dump or log). Contact your sales representative or a field engineer.

Severity:

Warning

Action:

(/ /T/S)

11202

e1000:%i Adapter error (The EEPROM Checksum Is Not Valid) vendor-id=8086 device-id=%d revision=%r

Meaning:

An EEPROM checksum error was detected.

%i: ethx or xxxx:xx:xx.x

%d: (Example) 1209

%r: Numerical value (1 to 3 digits)

Corrective action:

An adapter failure may have occurred. Replace the adapter.

Severity:

Warning

Action:

(R/M/T/S)

11203

e1000:xxxx:xx:xx.x Adapter error (Unknown MAC Type) vendor-id=8086 device-id=%d revision=%r

Meaning:

An unknown controller was detected.

%d: device id (e.g., 1209)

%r: Numerical value (1 to 3 digits)

Corrective action:

An adapter failure may have occurred. Replace the adapter.

Severity:

Warning

Action:

(R/M/T/S)

11204

e1000:ethx Adapter error (Hardware Error) vendor-id=8086 device-id=%d revision=%r

Meaning:

A hardware error was detected.

%d: device id (e.g., 1209)

%r: Numerical value (1 to 3 digits)

Corrective action:

An adapter failure may have occurred. Replace the adapter.

Severity:

Warning

Action:

(R/M/T/S)

11205

e1000:%i Adapter error (EEPROM Read Error) vendor-id=8086 device-id=%d revision=%r

Meaning:

An EEPROM read error was detected.

%i: ethx or xxxx:xx:xx.x

%d: device id (e.g., 1209)

%r: Numerical value (1 to 3 digits)

Corrective action:

An adapter failure may have occurred. Replace the adapter.

Severity:

Warning

Action:

(R/M/T/S)

11206

e1000:%i Adapter or Software error (Invalid MAC Address)

Meaning:

The specified MAC address is invalid.

%i: ethx or xxxx:xx:xx.x

Corrective action:

Recheck the MAC address setting. If the MAC address is valid, an adapter failure may have occurred. Replace the adapter.

Severity:

Warning

Action:

(/ /T/S)

11207

e1000:ethx Software error (Unable to Allocate Memory)

Meaning:

Memory acquisition for the transmit descriptor ring failed.

Corrective action:

Check the validity of the system memory estimate. If the memory estimate seems reasonable, try restarting the system. If the problem persists even after a system restart, collect the data for investigation (dump or log), and contact your sales representative or a field engineer.

Severity:

Warning

Action:

(/ /T/S)

11208

e1000:ethx Software error (txdr align check failed)

Meaning:

An error was detected in the memory boundary check on the transmit descriptor.

Corrective action:

Check the validity of the system memory estimate. If the memory estimate seems reasonable, try restarting the system. If the problem persists even after a system restart, collect the data for investigation (dump or log), and contact your sales representative or a field engineer.

Severity:

Warning

Action:

(/ /T/S)

11209

e1000:ethx Software error (Unable to Allocate aligned Memory)

Meaning:

Memory acquisition for the transmit descriptor ring failed.

Corrective action:

Check the validity of the system memory estimate. If the memory estimate seems reasonable, try restarting the system. If the problem persists even after a system restart, collect the data for investigation (dump or log), and contact your sales representative or a field engineer.

Severity:

Warning

Action:

(/ /T/S)

11210

e1000:ethx Software error (Unable to Allocate Memory)

Meaning:

Memory acquisition for the receive descriptor ring failed.

Corrective action:

Check the validity of the system memory estimate. If the memory estimate seems reasonable, try restarting the system. If the problem

persists even after a system restart, collect the data for investigation (dump or log), and contact your sales representative or a field engineer.

Severity:

Warning

Action:

(/ /T/S)

11211

e1000:ethx Software error (txdr align check failed)

Meaning:

An error was detected in the memory boundary check on the receive descriptor.

Corrective action:

Check the validity of the system memory estimate. If the memory estimate seems reasonable, try restarting the system. If the problem persists even after a system restart, collect the data for investigation (dump or log), and contact your sales representative or a field engineer.

Severity:

Warning

Action:

(/ /T/S)

11212

e1000:ethx Software error (Unable to Allocate aligned Memory)

Meaning:

Memory acquisition for the receive descriptor ring failed.

Corrective action:

Check the validity of the system memory estimate. If the memory estimate seems reasonable, try restarting the system. If the problem persists even after a system restart, collect the data for investigation (dump or log), and contact your sales representative or a field engineer.

Severity:

Warning

Action:

(/ /T/S)

11213

e1000:ethx Software error (Unsupported Speed/Duplexity configuration)

Meaning:

The specified communication speed or method is not supported.

Corrective action:

Recheck the communication speed and method settings for the adapter. Set the correct values.

Severity:

Warning

Action:

(/ /T/S)

11214

e1000:xxxx:xx:xx.x Adapter error (PCI parity error detected) vendor-id=8086 device-id=%d revision=%r

Meaning:

A PCI parity error was detected.

%d: device id (e.g., 1209)

%r: Numerical value (1 to 3 digits)

Corrective action:

Replace the adapter. If the problem persists even after you replace the adapter, replace the device (e.g., PCI_Box) connected to the adapter.

Severity:

Warning

Action:

(R/M/T/S)

11215

e1000:xxxx:xx:xx.x Adapter error (Cannot recover from a PCI parity error) vendor-id=8086 device-id=%d revision=%r

Meaning:

Recovery from the PCI parity error is not possible.

%d: device id (e.g., 1209)

%r: Numerical value (1 to 3 digits)

Corrective action:

Replace the adapter. If the problem persists even after you replace the adapter, replace the device (e.g., PCI_Box) connected to the adapter.

Severity:

Warning

Action:

(R/M/T/S)

11216

e1000:xxxx:xx:xx.x Adapter error (PCI parity error detected) vendor-id=8086 device-id=%d revision=%r

Meaning:

A PCI parity error was detected.

%d: device id (e.g., 1209)

%r: Numerical value (1 to 3 digits)

Corrective action:

Replace the adapter. If the problem persists even after you replace the adapter, replace the device (e.g., PCI_Box) connected to the adapter.

Severity:

Warning

Action:

(R/M/T/S)

11217

e1000:xxxx:xx:xx.x Adapter error (Cannot recover from a PCI parity error) vendor-id=8086 device-id=%d revision=%r

Meaning:

Recovery from the PCI parity error is not possible.

%d: (Example) 1209

%r: Numerical value (1 to 3 digits)

Corrective action:

Replace the adapter. If the problem persists even after you replace the adapter, replace the device (e.g., PCI_Box) connected to the adapter.

Severity:

Warning

Action:

(R/M/T/S)

11218

e1000:xxxx:xx:xx.x Adapter error (PCI parity error detected) vendor-id=8086 device-id=%d revision=%r

Meaning:

A PCI parity error was detected during a DMA transfer.

%d: device id (e.g., 1209)

%r: Numerical value (1 to 3 digits)

Corrective action:

Replace the adapter. If the problem persists even after you replace the adapter, replace the device (e.g., PCI_Box) connected to the adapter.

Severity:

Warning

Action:

(R/M/T/S)

11219

e1000:ethx Adapter or Software error (Unable to allocate MSI interrupt Error)

Meaning:

The MSI interrupt resource cannot be allocated.

Corrective action:

Collect the data for investigation (dump or log). Contact your sales representative or a field engineer.

Severity:

Warning

Action:

(/ /T/S)

11220

e1000:ethx Adapter or Software error (Unable to allocate interrupt Error)

Meaning:

The interrupt resource cannot be allocated.

Corrective action:

Collect the data for investigation (dump or log). Contact your sales representative or a field engineer.

Severity:

Warning

Action:

(/ /T/S)

11221

e1000: Adapter error (EEPROM initialization failed)

Meaning:

Initialization of the EEPROM failed.

Corrective action:

Collect the data for investigation (dump or fjsnap). Contact your sales representative or a field engineer.

Severity:

Warning

Action:

(R/M/T/S)

11222

e1000:ethx Adapter or Software error (Detected Tx Unit Hang)

Meaning:

A hang was detected in the transmission unit.

Corrective action:

After this message was output, if communication is normal, no action is necessary. Alternatively, after this message was output, if communication becomes abnormal, restart (reset) the adapter or restart the system. If normal operation cannot be restored even after a system restart, replace the adapter.

Severity:

Warning

Action:

(/ /T/S)

11223

e1000:%i Adapter or Software error (Error in setting MWI)

Meaning:

Setting an MWI failed.

%i: ethx or xxxx:xx:xx.x

Corrective action:

Collect the data for investigation (dump or log). Contact your sales representative or a field engineer.

Severity:

Warning

Action:

(/ /T/S)

11224

e1000:xxxx:xx:xx.x Software error (Unable to allocate memory for queues)

Meaning:

Memory acquisition for the send and receive queues failed.

Corrective action:

Check the validity of the system memory estimate. If the memory estimate seems reasonable, try restarting the system. If the problem persists even after a system restart, collect the data for investigation (dump or log), and contact your sales representative or a field engineer.

Severity:

Warning

Action:

(/ /T/S)

11225

e1000:xxxx:xx:xx.x Software error (Allocation for Tx Queue Num failed)

Meaning:

Resource allocation for the send queue failed.

Corrective action:

Check the validity of the system memory estimate. If the memory estimate seems reasonable, try restarting the system. If the problem persists even after a system restart, collect the data for investigation (dump or log), and contact your sales representative or a field engineer.

Severity:

Warning

Action:

(/ /T/S)

11226

e1000:xxxx:xx:xx.x Software error (Allocation for Rx Queue Num failed)

Meaning:

Resource allocation for the receive queue failed.

Corrective action:

Check the validity of the system memory estimate. If the memory estimate seems reasonable, try restarting the system. If the problem persists even after a system restart, collect the data for investigation (dump or log), and contact your sales representative or a field engineer.

Severity:

Warning

Action:

(/ /T/S)

11227

e1000:ethx Software error (MTU > 9216 bytes not supported on 82572 controllers)

Meaning:

Setting an MTU of more than 9216 bytes is not supported on the 82572 controller.

Corrective action:

Recheck the MTU setting. Set a value in the correct range.

Severity:

Warning

Action:

(/ /T/S)

11231

e1000: Software error (Cannot re-enable PCI device after reset)

Meaning:

After a reset, the PCI device could not be restarted.

Corrective action:

Collect the data for investigation (dump or log). Contact your sales representative or a field engineer.

Severity:

Warning

Action:

(/ /T/S)

11232

e1000: Software error (can't bring device back up after reset)

Meaning:

After a reset, a device could not return to the active state.

Corrective action:

Collect the data for investigation (dump or log). Contact your sales representative or a field engineer.

Severity:

Warning

Action:

(/ /T/S)

11233

e1000:ethx Software error (Cannot change link characteristics when SoL/IDER is active)

Meaning:

The link setting cannot be changed.

Corrective action:

Collect the data for investigation (dump or log). Contact your sales representative or a field engineer.

Severity:

Warning

Action:

(/ /T/S)

11234

e1000:ethx Adapter error (pattern reg test failed) vendor-id=8086 device-id=%d revision=%r

Meaning:

The pattern test failed.

%d: device id (e.g., 1209)

%r: Numerical value (1 to 3 digits)

Corrective action:

An adapter failure may have occurred. Replace the adapter.

Severity:

Warning

Action:

(R/M/T/S)

11235

e1000:ethx Adapter error (set/check reg test failed) vendor-id=8086 device-id=%d revision=%r

Meaning:

The register test failed.

%d: device id (e.g., 1209)

%r: Numerical value (1 to 3 digits)

Corrective action:

An adapter failure may have occurred. Replace the adapter.

Severity:

Warning

Action:

(R/M/T/S)

11236

e1000:ethx Adapter error (failed STATUS register test) vendor-id=8086 device-id=%d revision=%r

Meaning:

The STATUS register test failed.

%d: (Example) 1209

%r: Numerical value (1 to 3 digits)

Corrective action:

An adapter failure may have occurred. Replace the adapter.

Severity:

Warning

Action:

(R/M/T/S)

11237

e1000:ethx Adapter error (Cannot do PHY loopback test when SoL/IDER is active) vendor-id=8086 device-id=%d revision=%r

Meaning:

The PHY loopback test cannot be executed.

%d: device id (e.g., 1209)

%r: Numerical value (1 to 3 digits)

Corrective action:

An adapter failure may have occurred. Replace the adapter.

Severity:

Warning

Action:

(R/M/T/S)

11239

e1000: Software error (Cannot enable PCI device from suspend)

Meaning:

The PCI device cannot be started from the suspend state.

Corrective action:

Collect the data for investigation (dump or log). Contact your sales representative or a field engineer.

Severity:

Warning

Action:

(/ /T/S)

11240

e1000:xxxx:xx:xx.x Adapter error (readl: PCI master abort error) vendor-id=8086 device-id=%d revision=%r

Meaning:

A PCI master abort error occurred during a read operation on a register.

%d: device id (e.g., 1209)

%r: Numerical value (1 to 3 digits)

Corrective action:

A hardware error occurred. An adapter or IOB failure may have occurred. First, replace the adapter. If the problem recurs, replace the IOB.

Severity:

Warning

Action:

(R/M/T/S)

11241

e1000:xxxx:xx:xx.x Adapter error (writel: PCI master abort error) vendor-id=8086 device-id=%d revision=%r

Meaning:

A PCI master abort error occurred during a write operation on a register.

%d: (Example) 1209

%r: Numerical value (1 to 3 digits)

Corrective action:

A hardware error occurred. An adapter or IOB failure may have occurred. First, replace the adapter. If the problem recurs, replace the IOB.

Severity:

Warning

Action:

(R/M/T/S)

11243

e1000: ethx Software error (e1000_set_multi:memory allocation failed)

Meaning:

Memory allocation for the multicast address table failed.

Corrective action:

Check the validity of the system memory estimate. If the memory estimate seems reasonable, try restarting the system. If the problem persists even after a system restart, collect the data for investigation (dump or log), and contact your sales representative or a field engineer.

Severity:

Warning

Action:

(/ /T/S)

11244

e1000: ethx Adapter or Software error (e1000_clean_jumbo_rx_irq: pskb_may_pull failed)

Meaning:

The header deletion process (pskb_may_pull) on a received packet failed.

Corrective action:

Collect the data for investigation (dump or fjsnap). Contact your sales representative or a field engineer.

Severity:

Warning

Action:

(/ /T/S)

- e1000e-related

This section lists e1000e-related messages.

11600

e1000e:xxxx:xx:xx.x Adapter or Software error (No usable DMA configuration; aborting) vendor-id=8086 device-id=%d revision=%r

Meaning:

DMA cannot be used on this system.

%d: device id (e.g., 1209)

%r: Numerical value (1 to 3 digits)

Corrective action:

Collect the data for investigation (dump or log). Contact your sales representative or a field engineer.

Severity:

Warning

Action:

(/ /T/S)

11601

e1000e:xxxx:xx:xx.x Adapter error (The NVM Checksum Is Not Valid) vendor-id=8086 device-id=%d revision=%r

Meaning:

An NVM checksum error was detected.

%d: device id (e.g., 1209)

%r: Numerical value (1 to 3 digits)

Corrective action:

An adapter failure may have occurred. Replace the adapter.

Severity:

Warning

Action:

(R/M/T/S)

11602

e1000e:%s Adapter error (Hardware Error) vendor-id=8086 device-id=%d revision=%r

Meaning:

A hardware error was detected.

%s: ethx or xxxx:xx:xx.x

%d: (Example) 1209

%r: Numerical value (1 to 3 digits)

Corrective action:

An adapter failure may have occurred. Replace the adapter.

Severity:

Warning

Action:

(R/M/T/S)

11603

e1000e:xxxx:xx:xx.x Adapter error (NVM Read Error while reading MAC address) vendor-id=8086 device-id=%d revision=%r

Meaning:

An NVM read error was detected during reading of a MAC address.

%d: device id (e.g., 1209)

%r: Numerical value (1 to 3 digits)

Corrective action:

An adapter failure may have occurred. Replace the adapter.

Severity:

Warning

Action:

(R/M/T/S)

11604

e1000e:xxxx:xx:xx.x Adapter or Software error (Invalid MAC Address) vendor-id=8086 device-id=%d revision=%r

Meaning:

The specified MAC address is invalid.

%d: device id (e.g., 1209)

%r: Numerical value (1 to 3 digits)

Corrective action:

Recheck the MAC address setting. If the MAC address is valid, an adapter failure may have occurred. Replace the adapter.

Severity:

Warning

Action:

(/ /T/S)

11605

e1000e:ethx Software error (Unable to allocate memory for the transmit descriptor ring)

Meaning:

Memory acquisition for the transmit descriptor ring failed.

Corrective action:

Check the validity of the system memory estimate. If the memory estimate seems reasonable, try restarting the system. If the problem persists even after a system restart, collect the data for investigation (dump or log), and contact your sales representative or a field engineer.

Severity:

Warning

Action:

(/ /T/S)

11606

e1000e:ethx Software error (Unable to allocate memory for the receive descriptor ring)

Meaning:

Memory acquisition for the receive descriptor ring failed.

Corrective action:

Check the validity of the system memory estimate. If the memory estimate seems reasonable, try restarting the system. If the problem persists even after a system restart, collect the data for investigation (dump or log), and contact your sales representative or a field engineer.

Severity:

Warning

Action:

(/ /T/S)

11607

e1000e:ethx Software error (Unsupported Speed/Duplex configuration)

Meaning:

The specified communication speed or method is not supported.

Corrective action:

Recheck the communication speed and method settings for the adapter. Set the correct values.

Severity:

Warning

Action:

(/ /T/S)

11608

e1000e:ethx Adapter or Software error (Unable to allocate MSI interrupt) vendor-id=8086 device-id=%d revision=%r

Meaning:

The MSI interrupt resource cannot be allocated.

%d: device id (e.g., 1209)

%r: Numerical value (1 to 3 digits)

Corrective action:

Collect the data for investigation (dump or log). Contact your sales representative or a field engineer.

Severity:

Warning

Action:

(/ /T/S)

11609

e1000e:ethx Adapter or Software error (Detected Tx Unit Hang) vendor-id=8086 device-id=%d revision=%r

Meaning:

A hang was detected in the transmission unit.

%d: (Example) 1209

%r: Numerical value (1 to 3 digits)

Corrective action:

After this message was output, if communication is normal, no action is necessary.

Alternatively, after this message was output, if communication becomes abnormal, restart (reset) the adapter or restart the system. If

normal operation cannot be restored even after a system restart, replace the adapter.

Severity:

Warning

Action:

(/ /T/S)

11610

e1000e:ethx Adapter error (pattern test reg failed) vendor-id=8086 device-id=%d revision=%r

Meaning:

The pattern test failed.

%d: device id (e.g., 1209)

%r: Numerical value (1 to 3 digits)

Corrective action:

An adapter failure may have occurred. Replace the adapter.

Severity:

Warning

Action:

(R/M/T/S)

11611

e1000e:ethx Adapter error (set/check reg test failed) vendor-id=8086 device-id=%d revision=%r

Meaning:

The register test failed.

%d: device id (e.g., 1209)

%r: Numerical value (1 to 3 digits)

Corrective action:

An adapter failure may have occurred. Replace the adapter.

Severity:

Warning

Action:

(R/M/T/S)

11612

e1000e:ethx Adapter error (failed STATUS register test) vendor-id=8086 device-id=%d revision=%r

Meaning:

The STATUS register test failed.

%d: (Example) 1209

%r: Numerical value (1 to 3 digits)

Corrective action:

An adapter failure may have occurred. Replace the adapter.

Severity:

Warning

Action:

(R/M/T/S)

11613

e1000e:ethx Software error (MTU > 9216 not supported.)

Meaning:

Setting an MTU of more than 9216 bytes is not supported on this controller.

Corrective action:

Recheck the MTU setting. Set a value in the correct range.

Severity:

Warning

Action:

(/ /T/S)

11614

e1000e:ethx Adapter or Software error (Cannot change link characteristics when SoL/IDER is active.) vendor-id=8086 device-id=%d revision=%r

Meaning:

The link setting cannot be changed.

%d: device id (e.g., 1209)

%r: Numerical value (1 to 3 digits)

Corrective action:

Collect the data for investigation (dump or log). Contact your sales representative or a field engineer.

Severity:

Warning

Action:

(/ /T/S)

11615

e1000e:ethx Adapter error (Cannot do PHY loopback test when SoL/IDER is active.) vendor-id=8086 device-id=%d revision=%r

Meaning:

The PHY loopback test cannot be executed.

%d: device id (e.g., 1209)

%r: Numerical value (1 to 3 digits)

Corrective action:

An adapter failure may have occurred. Replace the adapter.

Severity:

Warning

Action:

(R/M/T/S)

11616

e1000e:xxxx:xx:xx.x Software error (Unable to allocate memory for queues)

Meaning:

Memory acquisition for the send and receive queues failed.

Corrective action:

Check the validity of the system memory estimate. If the memory estimate seems reasonable, try restarting the system. If the problem persists even after a system restart, collect the data for investigation (dump or log), and contact your sales representative or a field engineer.

Severity:

Warning

Action:

(/ /T/S)

11617

e1000e:xxxx:xx:xx.x Adapter or Software error (Cannot enable PCI device from suspend) vendor-id=8086 device-id=%d revision=%r

Meaning:

The PCI device cannot be started from the suspend state.

%d: device id (e.g., 1209)

%r: Numerical value (1 to 3 digits)

Corrective action:

Collect the data for investigation (dump or log). Contact your sales representative or a field engineer.

Severity:

Warning

Action:

(/ /T/S)

11618

e1000e:xxxx:xx:xx.x Adapter or Software error (Cannot re-enable PCI device after reset) vendor-id=8086 device-id=%d revision=%r

Meaning:

After an adapter reset, the PCI device could not be restarted.

%d: device id (e.g., 1209)

%r: Numerical value (1 to 3 digits)

Corrective action:

Collect the data for investigation (dump or log). Contact your sales representative or a field engineer.

Severity:

Warning

Action:

(/ /T/S)

11619

e1000e:xxxx:xx:xx.x Adapter or Software error (can't bring device back up after reset) vendor-id=8086 device-id=%d revision=%r

Meaning:

After a reset, the device backup could not be acquired.

%d: device id (e.g., 1209)

%r: Numerical value (1 to 3 digits)

Corrective action:

Collect the data for investigation (dump or log). Contact your sales representative or a field engineer.

Severity:

Warning

Action:

(/ /T/S)

11620

e1000e:xxxx:xx:xx.x Software error (DMA map failed)

Meaning:

Receive DMA address mapping failed.

Corrective action:

Check the validity of the system memory estimate. If the memory estimate seems reasonable, try restarting the system. If the problem persists even after a system restart, collect the data for investigation (dump or log), and contact your sales representative or a field engineer.

Severity:

Warning

Action:

(/ /T/S)

11621

e1000e:ethx Software error (pskb_may_pull failed.)

Meaning:

The header deletion process (pskb_may_pull) on a received packet failed.

Corrective action:

Collect the data for investigation (dump or fjsnap). Contact your sales representative or a field engineer.

Severity:

Warning

Action:

(/ /T/S)

11622

e1000e:%s Software error (Failed to initialize MSI-X interrupts. Falling back to MSI interrupts.)

Meaning:

Switching to an MSI interrupt occurred because initialization of the MSI-X interrupt failed.

%s: ethx or xxxx.xx.xx.x

Corrective action:

Collect the data for investigation (dump or fjsnap). Contact your sales representative or a field engineer.

Severity:

Warning

Action:

(/ /T/S)

11623

e1000e:%s Software error (Failed to initialize MSI interrupts. Falling back to legacy interrupts.)

Meaning:

Switching to a legacy interrupt occurred because initialization of the MSI interrupt failed.

%s: ethx or xxxx.xx.xx.x

Corrective action:

Collect the data for investigation (dump or fjsnap). Ask your sales representative or a field engineer to perform an investigation.

For a RHEL 5.3 Xen environment, no action is necessary. (Although this message is output at operating system startup because the management operating system does not support MSI, there is no effect on the system.)

Severity:

Warning

Action:

(/ /T/S)

11624

e1000e:ethx Software error (Interrupt allocation failed)

Meaning:

Setting an interrupt failed.

Corrective action:

Collect the data for investigation (dump or fjsnap). Contact your sales representative or a field engineer.

Severity:

Warning

Action:

(/ /T/S)

11625

e1000e:ethx Software error (MSI interrupt test failed; using legacy interrupt.)

Meaning:

A legacy interrupt is used because the MSI interrupt test failed.

Corrective action:

Collect the data for investigation (dump or fjsnap). Contact your sales representative or a field engineer.

Severity:

Warning

Action:

(/ /T/S)

11626

e1000e:ethx Software error (Error reading PHY register)

Meaning:

Reading of the PHY register failed.

Corrective action:

Collect the data for investigation (dump or fjsnap). Contact your sales representative or a field engineer.

Severity:

Warning

Action:

(/ /T/S)

11627

e1000e:Software error (multicast array memory allocation failed)

Meaning:

Memory acquisition for the multicast address table failed.

Corrective action:

Check the validity of the system memory estimate. If the memory estimate seems reasonable, try restarting the system. If the problem persists even after a system restart, collect the data for investigation (dump or fjsnap), and contact your sales representative or a field engineer.

Severity:

Warning

Action:

(/ /T/S)

11628

e1000e:ethx Software error (Could not acquire PHY)

Meaning:

PHY semaphore acquisition failed.

Corrective action:

Collect the data for investigation (dump or fjsnap). Contact your sales representative or a field engineer.

Severity:

Warning

Action:

(/ /T/S)

11629

e1000e:ethx Software error (Could not read PHY page 769)

Meaning:

Reading of PHY page 769 failed.

Corrective action:

Collect the data for investigation (dump or fjsnap). Contact your sales representative or a field engineer.

Severity:

Warning

Action:

(/ /T/S)

11630

e1000e:ethx Software error (Could not set PHY Host Wakeup bit)

Meaning:

Reading of the PHY Host Wakeup bit failed.

Corrective action:

Collect the data for investigation (dump or fjsnap). Contact your sales representative or a field engineer.

Severity:

Warning

Action:

(/ /T/S)

11631

e1000e:xxxx:xx:xx.x Software error (not support wake-up packets)

Meaning:

This interface does not support directed (unicast) frame wake-up packets.

Corrective action:

Check whether the card supports WOL. If it supports WOL, confirm that the setting was made in the correct way.

Severity:

Warning

Action:

(/ /T/S)

11632

e1000e:xxxx:xx:xx.x Adapter or Software error (Detected Hardware Unit Hang)

vendor-id=8086 device-id=%d revision=%r

Meaning:

A hardware unit hang was detected.

Corrective action:

After this message was output, if communication is normal, no action is necessary.

Alternatively, after this message was output, if communication becomes abnormal, restart (reset) the adapter or restart the system. If normal operation cannot be restored even after a system restart, replace the adapter.

Severity:

Warning

Action:

(/ /T/S)

11633

e1000e:xxxx:xx:xx.x Adapter or Software error (__pskb_pull_tail failed)

Meaning:

Additional processing for the transmission packet (_pskb_pull_tail) failed.

Corrective action:

Collect the data for investigation (dump or fjsnap). Contact your sales representative or a field engineer.

Severity:

Warning

Action:

(/ /T/S)

11634

e1000e:xxxx:xx:xx.x Software error (Jumbo Frames not supported)

Meaning:

Jumbo frames are not supported.

Corrective action:

Delete the settings of jumbo frames.

Severity:

Warning

Action:

(/ /T/S)

11635

e1000e:xxxx:xx:xx.x Software error (Unsupported MTU setting)

Meaning:

An unsupported MTU setting was made.

Corrective action:

Recheck the MTU setting. Set a value in the correct range.

Severity:

Warning

Action:

(/ /T/S)

11636

e1000e:ethx Adapter or Software error (Reset adapter)

Meaning:

Adapter is reset.

Corrective action:

Collect the data for investigation (dump or fjsnap). Contact your sales representative or a field engineer.

Severity:

Warning

Action:

(/ /T/S)

- igb-related

This section lists igb-related messages.

11700

igb:xxxx:xx:xx.x Adapter or Software error (No usable DMA configuration; aborting)

Meaning:

DMA cannot be used on this system.

Corrective action:

Collect the data for investigation (dump or fjsnap). Contact your sales representative or a field engineer.

Severity:

Warning

Action:

(/ /T/S)

11701

igb:xxxx:xx:xx.x Adapter error (The NVM Checksum Is Not Valid) vendor-id=8086 device-id=%d revision=%r

Meaning:

An NVM checksum error was detected.

%d: (Example) 1209

%r: Numerical value (1 to 3 digits)

Corrective action:

An adapter failure may have occurred. Replace the adapter.

Severity:

Warning

Action:

(R/M/T/S)

11702

igb:xxxx:xx:xx.x Adapter error (Hardware Error) vendor-id=8086 device-id=%d revision=%r

Meaning:

A hardware error was detected.

%d: (Example) 1209

%r: Numerical value (1 to 3 digits)

Corrective action:

An adapter failure may have occurred. Replace the adapter.

Severity:

Warning

Action:

(R/M/T/S)

11703

igb:xxxx:xx:xx.x Adapter error (NVM Read Error) vendor-id=8086 device-id=%d revision=%r

Meaning:

An NVM read error was detected.

%d: (Example) 1209

%r: Numerical value (1 to 3 digits)

Corrective action:

An adapter failure may have occurred. Replace the adapter.

Severity:

Warning

Action:

(R/M/T/S)

11704

igb:xxxx:xx:xx.x Adapter or Software error (Invalid MAC Address)

Meaning:

The specified MAC address is invalid.

Corrective action:

Recheck the MAC address setting. If the MAC address is valid, an adapter failure may have occurred. Replace the adapter.

Severity:

Warning

Action:

(/ /T/S)

11705

igb:xxxx:xx:xx.x Software error (Unable to allocate memory for the transmit descriptor ring)

Meaning:

Memory acquisition for the transmit descriptor ring failed.

Corrective action:

Check the validity of the system memory estimate. If the memory estimate seems reasonable, try restarting the system. If the problem persists even after a system restart, collect the data for investigation (dump or fjsnap), and contact your sales representative or a field engineer.

Severity:

Warning

Action:

(/ /T/S)

11706

igb:xxxx:xx:xx.x Software error (Allocation for Tx Queue failed)

Meaning:

Memory acquisition for the transmit descriptor ring failed.

Corrective action:

Check the validity of the system memory estimate. If the memory estimate seems reasonable, try restarting the system. If the problem persists even after a system restart, collect the data for investigation (dump or fjsnap), and contact your sales representative or a field engineer.

Severity:

Warning

Action:

(/ /T/S)

11707

igb:xxxx:xx:xx.x Software error (Unsupported Speed/Duplex configuration)

Meaning:

The specified communication speed or method is not supported.

Corrective action:

Recheck the communication speed and method settings for the adapter. Set the correct values.

Severity:

Warning

Action:

(/ /T/S)

11708

igb:xxxx:xx:xx.x Adapter or Software error (Allocation for Rx Queue failed)

Meaning:

Memory acquisition for the receive descriptor ring failed.

Corrective action:

Check the validity of the system memory estimate. If the memory estimate seems reasonable, try restarting the system. If the problem persists even after a system restart, collect the data for investigation (dump or fjsnap), and contact your sales representative or a field engineer.

Severity:

Warning

Action:

(/ /T/S)

11709

igb:xxxx:xx:xx.x Adapter or Software error (Detected Tx Unit Hang)

Meaning:

A hang was detected in the transmission unit.

%d: (Example) 1209

%r: Numerical value (1 to 3 digits)

Corrective action:

After this message was output, if communication is normal, no action is necessary. Alternatively, after this message was output, if communication becomes abnormal, restart (reset) the adapter or restart the system. If normal operation cannot be restored even after a system restart, replace the adapter.

Severity:

Warning

Action:

(/ /T/S)

11710

igb:xxxx:xx:xx.x Adapter error (pattern test reg failed) vendor-id=8086 device-id=%d revision=%r

Meaning:

The pattern test failed.
%d: (Example) 1209

%r: Numerical value (1 to 3 digits)

Corrective action:

An adapter failure may have occurred. Replace the adapter.

Severity:

Warning

Action:

(R/M/T/S)

11711

igb:xxxx:xx:xx.x Adapter error (set/check reg test failed) vendor-id=8086 device-id=%d revision=%r

Meaning:

The register test failed.

%d: (Example) 1209

%r: Numerical value (1 to 3 digits)

Corrective action:

An adapter failure may have occurred. Replace the adapter.

Severity:

Warning

Action:

(R/M/T/S)

11712

igb:xxxx:xx:xx.x Adapter error (failed STATUS register test) vendor-id=8086 device-id=%d revision=%r

Meaning: The register test failed.

%d: (Example) 1209

%r: Numerical value (1 to 3 digits)

Corrective action:

An adapter failure may have occurred. Replace the adapter.

Severity:

Warning

Action:

(R/M/T/S)

11713

igb:xxxx:xx:xx.x Software error (MTU > 9216 not supported.)

Meaning:

Setting an MTU of more than 9216 bytes is not supported on this controller.

Corrective action:

Recheck the MTU setting. Set a value in the correct range.

Severity:

Warning

Action:

(/ /T/S)

11714

igb:xxxx:xx:xx.x Adapter or Software error (Cannot change link characteristics when SoL/IDER is active.)

Meaning:

The link setting cannot be changed.

%d: (Example) 1209

%r: Numerical value (1 to 3 digits)

Corrective action:

Collect the data for investigation (dump or fjsnap). Contact your sales representative or a field engineer.

Severity:

Warning

Action:

(/ /T/S)

11715

igb:xxxx:xx:xx.x Adapter error (Cannot do PHY loopback test when SoL/IDER is active.) vendor-id=8086 device-id=%d revision=%r

Meaning:

The PHY loopback test cannot be executed.

%d: (Example) 1209

%r: Numerical value (1 to 3 digits)

Corrective action: An adapter failure may have occurred. Replace the adapter.

Severity:

Warning

Action:

(R/M/T/S)

11716

igb:xxxx:xx:xx.x Software error (Error getting interrupt)

Meaning:

Setting an interrupt failed.

Corrective action:

Collect the data for investigation (dump or fjsnap). Contact your sales representative or a field engineer.

Severity:

Warning

Action:

(/ /T/S)

11717

igb:xxxx:xx:xx.x Adapter or Software error (Unable to allocate memory for queues)

Meaning:

Memory acquisition for the send and receive queues failed.

Corrective action:

Check the validity of the system memory estimate. If the memory estimate seems reasonable, try restarting the system. If the problem persists even after a system restart, collect the data for investigation (dump or fjsnap), and contact your sales representative or a field engineer.

Severity:

Warning

Action:

(/ /T/S)

11718

igb:xxxx:xx:xx.x Adapter or Software error (Cannot enable PCI device from suspend)

Meaning:

The PCI device cannot be started from the suspend state.

Corrective action:

Collect the data for investigation (dump or fjsnap). Contact your sales representative or a field engineer.

Severity:

Warning

Action:

(/ /T/S)

11719

igb:xxxx:xx:xx.x Adapter or Software error (Cannot re-enable PCI device after reset.)

Meaning:

After a reset, the PCI device could not be restarted.

Corrective action:

Collect the data for investigation (dump or fjsnap). Contact your sales representative or a field engineer.

Severity:

Warning

Action:

(/ /T/S)

11720

igb:xxxx:xx:xx.x Software error (igb_up failed after reset)

Meaning:

Interface startup after a reset failed.

Corrective action:

Collect the data for investigation (dump or fjsnap). Contact your sales representative or a field engineer.

Severity:

Warning

Action:

(/ /T/S)

11721

igb:xxxx:xx:xx.x Software error (Could not allocate VF private data - IOV enable failed)

Meaning:

EnablingIOV failed because the VF (Virtual Function) private data could not be allocated.

Corrective action:

Check the validity of the system memory estimate. If the memory estimate seems reasonable, try restarting the system. If the problem persists even after a system restart, collect the data for investigation (dump or fjsnap), and contact your sales representative or a field engineer.

Severity:

Warning

Action:

(/ /T/S)

11722

igb:xxxx:xx:xx.x Software error (failed to allocate multicast filter list)

Meaning:

Creation of a multicast filter list failed.

Corrective action:

Check the validity of the system memory estimate. If the memory estimate seems reasonable, try restarting the system. If the problem persists even after a system restart, collect the data for investigation (dump or fjsnap), and contact your sales representative or a field engineer.

Severity:

Warning

Action:

(/ /T/S)

11723

igb:xxxx:xx:xx.x Software error (Error receiving msg from VF)

Meaning:

An error was detected while a message was received from the VF.

Corrective action:

Collect the data for investigation (dump or fjsnap). Contact your sales representative or a field engineer.

Severity:

Warning

Action:

(/ /T/S)

11724

igb:xxxx:xx:xx.x Software error (Unhandled Msg)

Meaning:

A message received from the VF could not be handled.

Corrective action:

Collect the data for investigation (dump or fjsnap). Contact your sales representative or a field engineer.

Severity:

Warning

Action:

(/ /T/S)

11725

igb:xxxx:xx:xx.x Software error (Unable to allocate memory for vectors)

Meaning:

Allocation of memory for interrupt vectors failed.

Corrective action:

Check the validity of the system memory estimate. If the memory estimate seems reasonable, try restarting the system. If the problem persists even after a system restart, collect the data for investigation (dump or log), and contact your sales representative or a field engineer.

Severity:

Warning

Action:

(/ /T/S)

11726

igb:xxxx:xx:xx.x Software error (Invalid q_vector to ring mapping)

Meaning:

Mapping between an interrupt vector and transmission ring failed.

Corrective action:

Check the validity of the system memory estimate. If the memory estimate seems reasonable, try restarting the system. If the problem persists even after a system restart, collect the data for investigation (dump or log), and contact your sales representative or a field engineer.

Severity:

Warning

Action:

(/ /T/S)

11727

igb:xxxx:xx:xx.x Software error (Unable to allocate memory for VF Data Storage)

Meaning:

Allocation of memory for VF data storage failed.

Corrective action:

Check the validity of the system memory estimate. If the memory estimate seems reasonable, try restarting the system. If the problem persists even after a system restart, collect the data for investigation (dump or log), and contact your sales representative or a field engineer.

Severity:

Warning

Action:

(/ /T/S)

11728

igb:xxxx:xx:xx.x Software error (Unable to allocate memory for the receive descriptor ring)

Meaning:

Memory acquisition for the receive descriptor ring failed.

Corrective action:

Check the validity of the system memory estimate. If the memory estimate seems reasonable, try restarting the system. If the problem persists even after a system restart, collect the data for investigation (dump or log), and contact your sales representative or a field engineer.

Severity:

Warning

Action:

(/ /T/S)

11729

igb:xxxx:xx:xx.x Software error (Invalid MTU setting)

Meaning:

The specified MTU size is invalid.

Corrective action:

Recheck the MTU setting. Set a value in the correct range.

Severity:

Warning

Action:

(/ /T/S)

11730

igb:xxxx:xx:xx.x Adapter or Software error (pci_cleanup_aer_uncorrect_error_status failed)

Meaning:

Status clearing at the bus reset time failed.

Corrective action:

Collect the data for investigation (dump or fjsnap). Contact your sales representative or a field engineer.

Severity:

Warning

Action:

(/ /T/S)

11731

igb:xxxx:xx:xx.x Adapter error (PF device is not up) vendor-id=8086 device-id=% d revision=%r

Meaning:

The PF device is not active.

Corrective action:

An adapter failure may have occurred. Replace the adapter.

Severity:

Warning

Action:

(R/M/T/S)

11732

igb:xxxx:xx:xx.x Software error (TX DMA map failed)

Meaning:

DMA address map for transmittion is failed

Corrective action:

Check the validity of the system memory estimate. If the memory estimate seems reasonable, try restarting the system. If the problem persists even after a system restart, collect the data for investigation (dump or log), and contact your sales representative or a field engineer.

Severity:

Warning

Action:

(/ /T/S)

- ixgbe-related

This section lists ixgbe-related messages.

11800

ixgbe:Adapter or Software error (Cannot enable PCIdevice from suspend)

Meaning:

The PCI device cannot be started from the suspend state.

Corrective action:

Collect the data for investigation (dump or fjsnap). Contact your sales representative or a field engineer.

Severity:

Warning

Action:

(/ /T/S)

11801

ixgbe:Adapter or Software error (Cannot initialize interrupts for device)

Meaning:

The interrupt resources of the device cannot be initialized.

Corrective action:

Collect the data for investigation (dump or fjsnap). Contact your sales representative or a field engineer.

Severity:

Warning

Action:

(/ /T/S)

11802

ixgbe:ethx Adapter error (Fan has stopped) vendorid=8086 device-id=%d revision=%r

Meaning:

An adapter error occurred.

%d: (Example) 1209

%r: Numerical value (1 to 3 digits)

Corrective action:

An adapter failure may have occurred. Replace the adapter.

Severity:

Warning

Action:

(R/M/T/S)

11803

ixgbe:ethx Adapter or Software error (request_irqfailed for MSIX interrupt Error)

Meaning:

Initialization of the MSI-X interrupt failed.

Corrective action:

Collect the data for investigation (dump or fjsnap). Contact your sales representative or a field engineer.

Severity:

Warning

Action:

(/ /T/S)

11804

ixgbe:ethx Adapter or Software error (request_irq for msix_lsc failed)

Meaning:

Initialization of msix_lsc failed.

Corrective action:

Collect the data for investigation (dump or fjsnap). Contact your sales representative or a field engineer.

Severity:

Warning

Action:

(/ /T/S)

11805

ixgbe:ethx Adapter or Software error (request_irq failed)

Meaning:

Initialization of the interrupt failed.

Corrective action:

Collect the data for investigation (dump or fjsnap). Contact your sales representative or a field engineer.

Severity:

Warning

Action:

(/ /T/S)

11806

ixgbe:ethx Adapter or Software error (RXDCTL.ENABLE on Rx queue not set within the polling period) vendor-id=8086 device-id=%d revision=%r

Meaning:

RXDCTL.ENABLE of the receive queue could not be set within the polling period.

%d: (Example) 1209

%r: Numerical value (1 to 3 digits)

Corrective action:

Collect the data for investigation (dump or fjsnap). Contact your sales representative or a field engineer.

Severity:

Warning

Action:

(/ /T/S)

11807

ixgbe:ethx Adapter error (link_config FAILED) vendor-id=8086 device-id=%d revision=%r

Meaning:

The condition and speed of the link cannot be set.

%d: (Example) 1209

%r: Numerical value (1 to 3 digits)

Corrective action:

An adapter failure may have occurred. Replace the adapter.

Severity:

Warning

Action:

(R/M/T/S)

11808

ixgbe:ethx Adapter error (Unable to allocate MSI-X interrupts) vendor-id=8086 device-id=%d revision=%r

Meaning:

The vector required for an MSI-X interrupt cannot be assigned.

%d: (Example) 1209

%r: Numerical value (1 to 3 digits)

Corrective action:

An adapter failure may have occurred. Replace the adapter.

Severity:

Warning

Action:

(R/M/T/S)

11809

ixgbe:ethx Software error (Unable to allocate MSI interrupt; falling back to legacy)

Meaning:

Initialization of the MSI interrupt failed. Consequently, it was switched with a legacy interrupt.

Corrective action:

Collect the data for investigation (dump or fjsnap). Ask your sales representative or a field engineer to perform an investigation.

Severity:

Warning

Action:

(/ /T/S)

11810

ixgbe:ethx Software error (Unable to allocate memory for queues)

Meaning:

Memory for the send and receive queues cannot be allocated.

Corrective action:

Collect the data for investigation (dump or fjsnap). Ask your sales representative or a field engineer to perform an investigation.

If the physical memory is insufficient, add memory.

Severity:

Warning

Action:

(/ /T/S)

11811

ixgbe:ethx Adapter or Software error (Unable to setup interrupt capabilities)

Meaning:

The interrupt function could not be set up.

Corrective action:

Collect the data for investigation (dump or fjsnap). Ask your sales representative or a field engineer to perform an investigation.

Severity:

Warning

Action:

(/ /T/S)

11812

ixgbe:ethx Software error (Unable to allocate memory for the transmit descriptor ring)

Meaning:

Memory for the transmit descriptor ring cannot be allocated. There may be a temporary shortage of available memory in the system.

Corrective action:

Restart the system. If the problem persists even after a system restart, collect the data for investigation (dump or fjsnap). Contact your sales representative or a field engineer.

Severity:

Warning

Action:

(/ /T/S)

11813

ixgbe:ethx Software error (vmalloc allocation failed for the rx desc ring)

Meaning:

Memory for the receive descriptor ring cannot be allocated. There may be a temporary shortage of available memory in the system.

Corrective action:

Restart the system. If the problem persists even after a system restart, collect the data for investigation (dump or fjsnap). Contact your sales representative or a field engineer.

Severity:

Warning

Action:

(/ /T/S)

11814

ixgbe:ethx Adapter or Software error (Cannot reenable PCI device after reset) vendor-id=8086 device-id=%d revision=%r

Meaning:

After a reset, the PCI device could not be restarted.

%d: (Example) 1209

%r: Numerical value (1 to 3 digits)

Corrective action:

Collect the data for investigation (dump or fjsnap). Ask your sales representative or a field engineer to perform an investigation.

Severity:

Warning

Action:

(/ /T/S)

11815

ixgbe:ethx Adapter error (ixgbe_up failed after reset) vendor-id=8086 device-id=%d revision=%r

Meaning:

After a reset, the card could not be updated.

%d: (Example) 1209

%r: Numerical value (1 to 3 digits)

Corrective action:

An adapter failure may have occurred. Replace the adapter.

Severity:

Warning

Action:

(R/M/T/S)

11816

ixgbe:xxxx:xx:xx.x Adapter or Software error (HW Init failed) vendor-id=8086 device-id=%d revision=%r

Meaning:

Initialization of hardware failed.

%d: (Example) 1209

%r: Numerical value (1 to 3 digits)

Corrective action:

Collect the data for investigation (dump or fjsnap). Ask your sales representative or a field engineer to perform an investigation.

Severity:

Warning

Action:

(R/M/T/S)

11817

ixgbe:xxxx:xx:xx.x Adapter error (Hardware Error) vendor-id=8086 device-id=%d revision=%r

Meaning:

A hardware error was detected.

%d: (Example) 1209

%r: Numerical value (1 to 3 digits)

Corrective action:

An adapter failure may have occurred. Replace the adapter.

Severity:

Warning

Action:

(R/M/T/S)

11818

ixgbe:xxxx:xx:xx.x Adapter or Software error (EEPROM initialization failed) vendor-id=8086 device-id=%d revision=%r

Meaning:

Initialization of the EEPROM parameter failed.

%d: (Example) 1209

%r: Numerical value (1 to 3 digits)

Corrective action:

Collect the data for investigation (dump or fjsnap). Ask your sales representative or a field engineer to perform an investigation.

Severity:

Warning

Action:

(/ /T/S)

11819

ixgbe:xxxx:xx:xx.x Software error (TX DMA map failed)

Meaning:

Transmit DMA mapping failed.

Corrective action:

Collect the data for investigation (dump or fjsnap). Ask your sales representative or a field engineer to perform an investigation.

Severity:

Warning

Action:

(/ /T/S)

11820

ixgbe:xxxx:xx:xx.x Software error (No usable DMA configuration)

Meaning:

DMA configuration failed.

Corrective action:

Collect the data for investigation (dump or fjsnap). Ask your sales representative or a field engineer to perform an investigation.

Severity:

Warning

Action:

(/ /T/S)

11821

ixgbe:xxxx:xx:xx.x Adapter error (The EEPROM Checksum Is Not Valid) vendor-id=8086 device-id=%d revision=%r

Meaning:

An EEPROM checksum error was detected.

%d: (Example) 1209

%r: Numerical value (1 to 3 digits)

Corrective action:

An adapter failure may have occurred. Replace the adapter.

Severity:

Warning

Action:

(R/M/T/S)

11822

ixgbe:xxxx:xx:xx.x Adapter or Software error (invalid MAC address) vendor-id=8086 device-id=%d revision=%r

Meaning:

The MAC address setting in EEPROM has an error.

%d: (Example) 1209

%r: Numerical value (1 to 3 digits)

Corrective action:

Recheck the MAC address. If no problem is found in the specified MAC address and if the problem persists even after a system restart, collect the data for investigation (dump or fjsnap), and ask your sales representative or a field engineer to perform an investigation.

Severity:

Warning

Action:

(/ /T/S)

11823

ixgbe:ethx Adapter error (setup link failed) vendor-id=8086 device-id=%d revision=%r

Meaning:

The setting of NIC speed failed. A hardware error occurred.

%d: (Example) 1209

%r: Numerical value (1 to 3 digits)

Corrective action:

An adapter failure may have occurred. Replace the adapter.

Severity:

Warning

Action:

(R/M/T/S)

11824

ixgbe:ethx Adapter error (pattern test failed) vendor-id=8086 device-id=%d revision=%r

Meaning:

The pattern test of the NIC failed. A hardware error occurred.

%d: (Example) 1209

%r: Numerical value (1 to 3 digits)

Corrective action:

An adapter failure may have occurred. Replace the adapter.

Severity:

Warning

Action:

(R/M/T/S)

11825

ixgbe:ethx Adapter error (set/check reg test failed) vendor-id=8086 device-id=%d revision=%r

Meaning:

The register test of the NIC failed. A hardware error occurred.

%d: (Example) 1209

%r: Numerical value (1 to 3 digits)

Corrective action:

An adapter failure may have occurred. Replace the adapter.

Severity:

Warning

Action:

(R/M/T/S)

11826

ixgbe:ethx Adapter error (failed STATUS register test) vendor-id=8086 device-id=%d revision=%r

Meaning:

The STATUS register test of the NIC failed. A hardware error occurred.

%d: (Example) 1209

%r: Numerical value (1 to 3 digits)

Corrective action:

An adapter failure may have occurred. Replace the adapter.

Severity:

Warning

Action:

(R/M/T/S)

11827

ixgbe:ethx Adapter error (Could not enable Tx Queue) vendor-id=8086 device-id=%d revision=%r

Meaning:

The transmit queue cannot be enabled.

%d: (Example) 1209

%r: Numerical value (1 to 3 digits)

Corrective action:

An adapter failure may have occurred. Replace the adapter.

Severity:

Warning

Action:

(R/M/T/S)

11828

ixgbe:ethx Software error (Failed to enable PCI sriov)

Meaning:

PCI sriov cannot be enabled.

Corrective action:

Collect the data for investigation (dump or fjsnap). Ask your sales representative or a field engineer to perform an investigation.

Severity:

Warning

Action:

(/ /T/S)

11829

ixgbe:ethx Software error (Unable to allocate memory for VF Data Storage - SRIOV disabled)

Meaning:

Memory for VF data storage cannot be allocated. Disable SR-IOV.

Corrective action:

Collect the data for investigation (dump or fjsnap). Ask your sales representative or a field engineer to perform an investigation.

If the physical memory is insufficient, add memory.

Severity:

Warning

Action:

(/ /T/S)

11830

ixgbe:Adapter error (Error receiving msg from VF)

Meaning:

Messages from the VF cannot be received.

Corrective action:

An adapter failure may have occurred. Replace the adapter.

If multiple adapters of the same type are connected, compare them with what is displayed on the SVOM Web-UI. Replace the one that is connected but not displayed.

Severity:

Warning

Action:

(R/M/T/S)

11831

ixgbe:ethx Software error (Could not set MAC Filter for VF)

Meaning:

A MAC filter cannot be set for the VF.

Corrective action:

Collect the data for investigation (dump or fjsnap). Ask your sales representative or a field engineer to perform an investigation.

Severity:

Warning

Action:

(/ /T/S)

11832

ixgbe:ethx Software error (Unhandled Msg)

Meaning:

No handler for the message was found.

Corrective action:

Collect the data for investigation (dump or fjsnap). Ask your sales representative or a field engineer to perform an investigation.

Severity:

Warning

Action:

(/ /T/S)

11833

ixgbe:xxxx:xx:xx.x Software error (pci_request_selected_regions failed)

Meaning:

An error was returned from pci_request_selected_regions.

Corrective action:

Collect the data for investigation (dump or fjsnap). Contact your sales representative or a field engineer.

Severity:

Warning

Action:

(/ /T/S)

11834

ixgbe:xxxx:xx:xx.x Adapter error (Network adapter has over heated) vendor-id=8086 device-id=%d revision=%r

Meaning:

Network adapter has over heated.

Corrective action:

An adapter failure may have occurred. Replace the adapter.

Severity:

Warning

Action:

(R/M/T/S)

11835

ixgbe:ethx Adapter or Software error (Reset adapter)

Meaning:

Adapter is reset.

Corrective action:

Collect the data for investigation (dump or fjsnap). Ask your sales representative or a field engineer to perform an investigation.Severity:

Warning

Action:

(R/M/T/S)

11836

ixgbe:Adapter error (should not be a VF)

Meaning:

ID for VF is allocated to PF.

Corrective action:

An adapter failure may have occurred. Replace the adapter.

If multiple adapters of the same type are connected, compare them with what is displayed on the SVOM Web-UI. Replace the one that is connected but not displayed.

Severity:

Warning

Action:

(R/M/T/S)

メッセージ内容(**invalid MAC address**)と意味が異なりますが、あっていますか？

11837

ixgbe:xxxx:xx:xx.x Adapter or Software error (invalid MAC address)

Meaning:

failed to initialize because an unsupported SFP+ module type was detected.

Corrective action:

Collect the data for investigation (dump or fjsnap). Ask your sales representative or a field engineer to perform an investigation.Severity:

Severity:

Warning

Action:

(R/M/T/S)

7．2．5．Fibre Channel messages [Linux]

This section lists Fibre Channel-related messages.

12002

lpfc:xxxx:xx:xx.x Device or FC-Network error (unknown ELS command received) vendor-id=10DF device-id=%d revision=%r

Meaning:

An unknown or unsupported ELS command was received from a remote Nport.

%d: device id (e.g., F980)

%r: Numerical value (1 to 3 digits)

Corrective action:

Check the remote Nport.

Severity:

Warning

Action:

(/ /T/S)

12005

lpfc:xxxx:xx:xx.x Device or FC-Network error (Nodev timeout) vendor-id=10DF device-id=%d revision=%r

Meaning:

The driver lost a remote Nport.

%d: (Example) F980

%r: Numerical value (1 to 3 digits)

Corrective action:

Check the fabric/hub or device connection.

Severity:

Warning

Action:

(R/M/T/S)

12006

lpfc:xxxx:xx:xx.x FC-Network error (unknown Identifier in RSCN) vendor-id=10DF device-id=%d revision=%r

Meaning:

An RSCN payload contains an unknown ID.

%d: device id (e.g., F980)

%r: Numerical value (1 to 3 digits)

Corrective action:

This is a potential problem of the fabric switch. Contact the fabric vendor for a check.

Severity:

Warning

Action:

(/ /T/S)

12007

lpfc:xxxx:xx:xx.x Adapter or FC-Network error (Initial FLOGI timeout) vendor-id=10DF device-id=%d revision=%r

Meaning:

FLOGI timed out.

%d: device id (e.g., F980)

%r: Numerical value (1 to 3 digits)

Corrective action:

Check the fabric setting.

Severity:

Warning

Action:

(/ /T/S)

12009

lpfc:xxxx:xx:xx.x Adapter or FC-Network error (NameServer query timeout) vendor-id=10DF device-id=%d revision=%r

Meaning:

A query to the name server timed out.

%d: device id (e.g., F980)

%r: Numerical value (1 to 3 digits)

Corrective action:

Check the fabric setting.

Severity:

Warning

Action:

(/ /T/S)

12015

lpfc:xxxx:xx:xx.x Adapter error (stray mailbox interrupt mbxCommand) vendor-id=10DF device-id=%d revision=%r

Meaning:

The completion of a mailbox command that had supposedly not been issued was reported.

%d: (Example) F980

%r: Numerical value (1 to 3 digits)

Corrective action:

Hardware or firmware has a fault. If the error keeps recurring, contact your sales representative or a field engineer.

Severity:

Warning

Action:

(R/M/T/S)

12016

lpfc:xxxx:xx:xx.x Adapter error (CONFIG_LINK mbxStatus Error) vendor-id=10DF device-id=%d revision=%r

Meaning:

A CONFIG_LINK mailbox command was issued, but it failed.

%d: device id (e.g., F980)

%r: Numerical value (1 to 3 digits)

Corrective action:

Hardware or firmware has a fault. If the error keeps recurring, contact your sales representative or a field engineer.

Severity:

Warning

Action:

(R/M/T/S)

12018

lpfc:xxxx:xx:xx.x Adapter or Software error (Ring handler)

Meaning:

The index of the response ring on the port side is larger than the ring size.

Corrective action:

A driver, hardware, or firmware has a fault. Contact your sales representative or a field engineer.

Severity:

Warning

Action:

(/ /T/S)

12020

lpfc:xxxx:xx:xx.x Adapter or Software error (Ring issue)

Meaning:

The command get index of the ring on the port side is larger than the ring size.

Corrective action:

A driver, hardware, or firmware has a fault. Contact your sales representative or a field engineer.

Severity:

Warning

Action:

(/ /T/S)

12022

lpfc:xxxx:xx:xx.x Software error (Rsp ring get)

Meaning:

The Iotag assigned to the response ring exceeds the set maximum value.

Corrective action:

A driver has a fault. If the error keeps recurring, contact your sales representative or a field engineer.

Severity:

Warning

Action:

(/ /T/S)

12023

lpfc:xxxx:xx:xx.x Adapter error (READ_SPARM mbxStatus error) vendor-id=10DF device-id=%d revision=%r

Meaning:

The driver issued a READ_SPARM command, but it failed.

%d: device id (e.g., F980)

%r: Numerical value (1 to 3 digits)

Corrective action:

Hardware or firmware has a fault. Contact your sales representative or a field engineer.

Severity:

Warning

Action:

(R/M/T/S)

12024

lpfc:xxxx:xx:xx.x Adapter error (CLEAR_LA mbxStatus error) vendor-id=10DF device-id=%d revision=%r

Meaning:

The driver issued a CLEAR_LA mailbox command to the HBA, but it failed.

%d: device id (e.g., F980)

%r: Numerical value (1 to 3 digits)

Corrective action:

Hardware or firmware has a fault. Contact your sales representative or a field engineer.

Severity:

Warning

Action:

(R/M/T/S)

12025

lpfc:xxxx:xx:xx.x Adapter or Software error (unknown IOCB command)

Meaning:

An unknown IOCB command completion notification was received.

Corrective action:

A driver or firmware has a fault. If the error keeps recurring, contact your sales representative or a field engineer.

Severity:

Warning

Action:

(/ /T/S)

12026

lpfc:xxxx:xx:xx.x Adapter or Software error (unknown Mailbox command)

Meaning:

An unknown mailbox command completion notification was received.

Corrective action:

A driver, hardware, or firmware has a fault. Contact your sales representative or a field engineer.

Severity:

Warning

Action:

(/ /T/S)

12027

lpfc:xxxx:xx:xx.x Adapter error (Config Port initialization error) vendor-id=10DF device-id=%d revision=%r

Meaning:

A READ_NVPARM mailbox command failed during initialization of the adapter.

%d: device id (e.g., F980)

%r: Numerical value (1 to 3 digits)

Corrective action:

Hardware or firmware has a fault. If the error keeps recurring, contact your sales representative or a field engineer.

Severity:

Warning

Action:

(R/M/T/S)

12029

lpfc:xxxx:xx:xx.x Adapter error (Adapter failed to init; timeout) vendor-id=10DF device-id=%d revision=%r

Meaning:

An adapter error occurred.

%d: device id (e.g., F980)

%r: Numerical value (1 to 3 digits)

Corrective action:

Hardware or firmware has a fault. If the error keeps recurring, contact your sales representative or a field engineer.

Severity:

Warning

Action:

(R/M/T/S)

12030

lpfc:xxxx:xx:xx.x Adapter error (Adapter failed to init; chipset) vendor-id=10DF device-id=%d revision=%r

Meaning:

An adapter error occurred.

%d: (Example) F980

%r: Numerical value (1 to 3 digits)

Corrective action:

Hardware or firmware has a fault. If the error keeps recurring, contact your sales representative or a field engineer.

Severity:

Warning

Action:

(R/M/T/S)

12031

lpfc:xxxx:xx:xx.x Adapter error (Adapter failed to init; chipset) vendor-id=10DF device-id=%d revision=%r

Meaning:

An adapter error occurred.

%d: device id (e.g., F980)

%r: Numerical value (1 to 3 digits)

Corrective action:

Hardware or firmware has a fault. If the error keeps recurring, contact your sales representative or a field engineer.

Severity:

Warning

Action:

(R/M/T/S)

12032

lpfc:xxxx:xx:xx.x Adapter error (Adapter failed to init; mbxCmd READ_REV) vendor-id=10DF device-id=%d revision=%r

Meaning:

Initialization of the adapter failed.

%d: device id (e.g., F980)

%r: Numerical value (1 to 3 digits)

Corrective action:

Hardware or firmware has a fault. If the error keeps recurring, contact your sales representative or a field engineer.

Severity:

Warning

Action:

(R/M/T/S)

12033

lpfc:xxxx:xx:xx.x Adapter error (Adapter failed to init; mbxCmd READ_REV detected outdated firmware) vendor-id=10DF device-id=%d revision=%r

Meaning:

An old version of the firmware was detected during initialization.

%d: (Example) F980

%r: Numerical value (1 to 3 digits)

Corrective action:

Hardware or firmware has a fault. Update the firmware. If the error keeps recurring, contact your sales representative or a field engineer.

Severity:

Warning

Action:

(R/M/T/S)

12034

lpfc:xxxx:xx:xx.x Adapter error (Adapter failed to init; mbxCmd CONFIG_PORT) vendor-id=10DF device-id=%d revision=%r

Meaning:

Initialization of the adapter failed.

%d: device id (e.g., F980)

%r: Numerical value (1 to 3 digits)

Corrective action:

Hardware or firmware has a fault. If the error keeps recurring, contact your sales representative or a field engineer.

Severity:

Warning

Action:

(R/M/T/S)

12035

pfc:xxxx:xx:xx.x Adapter error (Adapter failed to init; mbxCmd CFG_RING) vendor-id=10DF device-id=%d revision=%r

Meaning:

Initialization of the adapter failed.

%d: device id (e.g., F980)

%r: Numerical value (1 to 3 digits)

Corrective action:

Hardware or firmware has a fault. If the error keeps recurring, contact your sales representative or a field engineer.

Severity:

Warning

Action:

(R/M/T/S)

12037

lpfc:xxxx:xx:xx.x Adapter error (Adapter failed init; mbxCmd READ_SPARM) vendor-id=10DF device-id=%d revision=%r

Meaning:

Initialization of the adapter failed.

%d: (Example) F980

%r: Numerical value (1 to 3 digits)

Corrective action:

Hardware or firmware has a fault. If the error keeps recurring, contact your sales representative or a field engineer.

Severity:

Warning

Action:

(R/M/T/S)

12038

lpfc:xxxx:xx:xx.x Adapter or Software error (Enable interrupt handler failed) vendor-id=10DF device-id=%d revision=%r

Meaning:

An attempt to register the HBA interrupt service routine with the operating system on the host failed.

%d: device id (e.g., F980)

%r: Numerical value (1 to 3 digits)

Corrective action:

Hardware or a driver has a fault. If the error keeps recurring, contact your sales representative or a field engineer.

Severity:

Warning

Action:

(/ /T/S)

12039

lpfc:xxxx:xx:xx.x Adapter error (Adapter failed to init; mbxCmd READ_CONFIG) vendor-id=10DF device-id=%d revision=%r

Meaning:

Initialization of the adapter failed.

%d: device id (e.g., F980)

%r: Numerical value (1 to 3 digits)

Corrective action:

Hardware or firmware has a fault. If the error keeps recurring, contact your sales representative or a field engineer.

Severity:

Warning

Action:

(R/M/T/S)

12040

lpfc:xxxx:xx:xx.x Adapter error (Adapter failed to mbxCmd INIT_LINK) vendor-id=10DF device-id=%d revision=%r

Meaning:

Initialization of the adapter failed.

%d: device id (e.g., F980)

%r: Numerical value (1 to 3 digits)

Corrective action:

Hardware or firmware has a fault. If the error keeps recurring, contact your sales representative or a field engineer.

Severity:

Warning

Action:

(R/M/T/S)

12041

lpfc:xxxx:xx:xx.x Adapter error (Adapter Hardware Error) vendor-id=10DF device-id=%d revision=%r

Meaning:

An interrupt that indicates a hardware fault was received.

%d: (Example) F980

%r: Numerical value (1 to 3 digits)

Corrective action:

Hardware or firmware has a fault.

If the error keeps recurring, contact your sales representative or a field engineer.

Severity:

Warning

Action:

(R/M/T/S)

12054

lpfc:xxxx:xx:xx.x Software error (Illegal State Transition)

Meaning:

An invalid node state transition was detected.

Corrective action:

A driver problem may have occurred. Contact your sales representative or a field engineer.

Severity:

Warning

Action:

(/ /T/S)

12059

lpfc:xxxx:xx:xx.x Adapter error (readl: Detected PCI parity error. Retries exhausted) vendor-id=10DF device-id=%d revision=%r

Meaning:

An error (Machine Check or Master Abort) was detected during readl, and retries were performed, but the operation ran out of retries. (PC error recovery)

%d: device id (e.g., F980)

%r: Numerical value (1 to 3 digits)

Corrective action:

If a retry with the succeeding driver is successful, no action is necessary. If it fails, replacement of the HBA may be necessary or the PCI bus may have a fault. Contact your sales representative or a field engineer.

If the error recurs after the retry, contact your sales representative or a field engineer.

Severity:

Warning

Action:

(/ /T/S)

12063

lpfc:xxxx:xx:xx.x Adapter error (writel: Detected PCI parity error. Retries exhausted) vendor-id=10DF device-id=%d revision=%r

Meaning:

A parity error was detected during writel, and retries were performed, but the operation ran out of retries. (PC error recovery)

%d: (Example) F980

%r: Numerical value (1 to 3 digits)

Corrective action:

If a retry with the succeeding driver is successful, no action is necessary. If it fails, replacement of the HBA may be necessary or the PCI bus may have a fault. Contact your sales representative or a field engineer.

If the error recurs after the retry, contact your sales representative or a field engineer.

Severity:

Warning

Action:

(/ /T/S)

12064

lpfc:xxxx:xx:xx.x Adapter error (Suspect any fixed hardware failure) vendor-id=10DF device-id=%d revision=%r

Meaning:

An HBA reset was tried after a parity error was detected, but the operation ran out of retries. The HBA is blocked.

(PC error recovery)

%d: device id (e.g., F980)

%r: Numerical value (1 to 3 digits)

Corrective action:

An HBA or a PCI bus in the system has a fault. Replace the adapter.

Severity:

Warning

Action:

(R/M/T/S)

12070

lpfc:xxxx:xx:xx.x Adapter error (Adapter reset failed) vendor-id=10DF device-id=%d revision=%r

Meaning:

When a PCI error was detected, HBA Reset was executed, but it failed. (PC error recovery)

%d: device id (e.g., F980)

%r: Numerical value (1 to 3 digits)

Corrective action:

The HBA must be replaced because it has a fault. Contact your sales representative or a field engineer.

Severity:

Warning

Action:

(R/M/T/S)

12076

lpfc:xxxx:xx:xx.x Software error (Device Discovery completion error)

Meaning:

Memory acquisition for the link reinitialization that is performed when a response from NameServer times out failed. As a result, device detection failed.

Corrective action:

A driver or system error (insufficient resources) occurred. If the error keeps recurring, contact your sales representative or a field engineer.

Severity:

Warning

Action:

(/ /T/S)

12078

lpfc:xxxx:xx:xx.x Adapter error (bigger then rsp ring) vendor-id=10DF device-id=%d revision=%r

Meaning:

The index of the response ring on the port side is larger in value than the ring size.

%d: deviceid vpd (e.g., FA00 LP10000-M2)

%r: Numerical value (1 to 3 digits)

Corrective action:

Driver firmware or hardware has a fault. Replace the adapter.

Severity:

Warning

Action:

(R/M/T/S)

12080

lpfc:xxxx:xx:xx.x Adapter error (Unknown IOCB command Data) vendor-id=10DF device-id=%d revision=%r

Meaning:

An unknown IOCB command was detected (for a function for fast-path processing, with IOCB of a FCP ring as the target).

%d: deviceid vpd (e.g., F980)

%r: Numerical value (1 to 3 digits)

Corrective action:

A driver or firmware has a fault. If the problem persists, replace the adapter.

Severity:

Warning

Action:

(R/M/T/S)

12081

lpfc:xxxx:xx:xx.x Adapter error (Unknown IOCB command Data) vendor-id=10DF device-id=%d revision=%r

Meaning:

An unknown IOCB command was detected (for a function for slow-path processing, with IOCB of a non-FCP ring (for example, ELS ring) as the target).

%d: deviceid vpd (e.g., F980)

%r: Numerical value (1 to 3 digits)

Corrective action:

A driver or firmware has a fault. If the problem persists, replace the adapter.

Severity:

Warning

Action:

(R/M/T/S)

12083

lpfc:xxxx:xx:xx.x Software error (Bus Reset on target failed)

Meaning:

Bus Reset on a target failed.

Corrective action:

A driver or system error (insufficient resources) occurred. If the error keeps recurring, contact your sales representative or a field engineer.

Severity:

Warning

Action:

(/ /T/S)

12089

lpfc:xxxx:xx:xx.x Adapter error (Adapter failed to mbxCmd CONFIG_HBQ) vendor-id=10DF device-id=%d revision=%r

Meaning:

Adapter initialization failure: The CONFIG_HBQ mailbox command failed.

%d: device id (e.g., F980)

%r: Numerical value (1 to 3 digits)

Corrective action:

A card or the card firmware has a fault. Contact your sales representative or a field engineer.

Severity:

Warning

Action:

(R/M/T/S)

12090

lpfc:xxxx:xx:xx.x Adapter or Device or FC-Network error (invalid service parameters) vendor-id=10DF device-id=%d revision=%r

Meaning:

An error (service parameter error) was detected on an FC interface.

%d: device id (e.g., F980)

%r: Numerical value (1 to 3 digits)

Corrective action:

Check the connection route (cable, switch, HBA, RAID port, etc.). If the error keeps recurring, contact your sales representative or a field engineer.

Severity:

Warning

Action:

(/ /T/S)

12091

lpfc:xxxx:xx:xx.x Adapter error (Adapter failed to set maximum DMA length mbxStatus) vendor-id=10DF device-id=%d revision=%r

Meaning:

Adapter initialization failure.

%d: (Example) F980

%r: Numerical value (1 to 3 digits)

Corrective action:

A card or the card firmware has a fault. Contact your sales representative or a field engineer.

Severity:

Warning

Action:

(R/M/T/S)

12092

lpfc:xxxx:xx:xx.x Device or FC-Network error (Invalid response length) vendor-id=10DF deviceid=%d revision=%r

Meaning:

The response length is invalid.

Corrective action:

The target or path has a problem. Check the connection path (cable, switch, HBA, disk device port, etc.).

Severity:

Warning

Action:

(/ /T/S)

12093

lpfc:xxxx:xx:xx.x Adapter or Software error (Tgt Map rport failure) vendor-id=10DF device-id=%d revision=%r

Meaning:

The remote port data on the driver is NULL.

Corrective action:

A card or driver has a problem. Contact your sales representative or a field engineer.

Severity:

Warning

Action:

(/ /T/S)

12094

lpfc:xxxx:xx:xx.x Adapter or Software error (Device Reset rport failure) vendor-id=10DF device-id=%d revision=%r

Meaning:

The remote port data on the driver is NULL.

Corrective action:

A card or driver has a problem. Contact your sales representative or a field engineer.

Severity:

Warning

Action:

(/ /T/S)

7．2．6．FCoE messages [Linux]

This section lists FCoE-related messages.

12200

lpfc:xxxx:xx:xx.x Software error (Slow-path EQ not allocated)

Meaning:

Memory (Slow Path EQ) can not be allcated.

Corrective action:

A driver or kernel has a fault or memory is insufficient.

Collect the data for investigation (dump or fjsnap). Contact your sales representative or a field engineer.

Severity :

Warning

Action:

(/ /T/S)

12201

lpfc:xxxx:xx:xx.x Adapter or Software error (Failed setup of slow-path EQ)

Meaning:

The setting for Slow Path EQ is failed.

Corrective action:

HBA has some fault or memory is insufficient.

Collect the data for investigation (dump or fjsnap). Contact your sales representative or a field engineer.

Severity :

Warning

Action:

(/ /T/S)

12202

lpfc:xxxx:xx:xx.x Software error (Fast-path EQ not allocated)

Meaning:

Memory (Fast Path EQ) can not be allcated.

Corrective action:

A driver or kernel has a fault or memory is insufficient.

Collect the data for investigation (dump or fjsnap). Contact your sales representative or a field engineer.

Severity :

Warning

Action:

(/ /T/S)

12203

lpfc:xxxx:xx:xx.x Adapter or Software error (Failed setup of fast-path EQ)

Meaning:

The setting for Fast Path EQ is failed.

Corrective action:

HBA has some fault or memory is insufficient.

Collect the data for investigation (dump or fjsnap). Contact your sales representative or a field engineer.

Severity :

Warning

Action:

(/ /T/S)

12204

lpfc:xxxx:xx:xx.x Software error (Mailbox CQ not allocated)

Meaning:

Memory (Mailbox CQ) can not be allcated.

Corrective action:

A driver or kernel has a fault or memory is insufficient.

Collect the data for investigation (dump or fjsnap). Contact your sales representative or a field engineer.

Severity :

Warning

Action:

(/ /T/S)

12205

lpfc:xxxx:xx:xx.x Adapter or Software error (Failed setup of slow-path mailbox CQ)

Meaning:

The setting for Slow Path mailbox CQ is failed.

Corrective action:

HBA has some fault or memory is insufficient.

Collect the data for investigation (dump or fjsnap). Contact your sales representative or a field engineer.

Severity :

Warning

Action:

(/ /T/S)

12206

lpfc:xxxx:xx:xx.x Software error (ELS CQ not allocated)

Meaning:

Memory (ELS CQ) can not be allcated.

Corrective action:

A driver or kernel has a fault or memory is insufficient.

Collect the data for investigation (dump or fjsnap). Contact your sales representative or a field engineer.

Severity :

Warning

Action:

(/ /T/S)

12207

lpfc:xxxx:xx:xx.x Adapter or Software error (Failed setup of slow-path ELS CQ)

Meaning:

The setting for Slow Path ELS CQ is failed.

Corrective action:

HBA has some fault or memory is insufficient.

Collect the data for investigation (dump or fjsnap). Contact your sales representative or a field engineer.

Severity :

Warning

Action:

(/ /T/S)

12208

lpfc:xxxx:xx:xx.x Software error (Fast-path FCP CQ not allocated)

Meaning:

Memory (Fast path FCP CQ) can not be allcated.

Corrective action:

A driver or kernel has a fault or memory is insufficient.

Collect the data for investigation (dump or fjsnap). Contact your sales representative or a field engineer.

Severity :

Warning

Action:

(/ /T/S)

12209

lpfc:xxxx:xx:xx.x Adapter or Software error (Failed setup of fast-path FCP CQ)

Meaning:

The setting for Fast Path FCP CQ is failed.

Corrective action:

HBA has some fault or memory is insufficient.

Collect the data for investigation (dump or fjsnap). Contact your sales representative or a field engineer.

Severity :

Warning

Action:

(/ /T/S)

12210

lpfc:xxxx:xx:xx.x Software error (Slow-path MQ not allocated)

Meaning:

Memory (Slow path MQ) can not be allcated.

Corrective action:

A driver or kernel has a fault or memory is insufficient.

Collect the data for investigation (dump or fjsnap). Contact your sales representative or a field engineer.

Severity :

Warning

Action:

(/ /T/S)

12211

lpfc:xxxx:xx:xx.x Adapter or Software error (Failed setup of slow-path MQ)

Meaning:

The setting for Slow path MQ is failed.

Corrective action:

HBA has some fault or memory is insufficient.

Collect the data for investigation (dump or fjsnap). Contact your sales representative or a field engineer.

Severity :

Warning

Action:

(/ /T/S)

12212

lpfc:xxxx:xx:xx.x Software error (Slow-path ELS WQ not allocated)

Meaning:

Memory (Slow path ELS WQ) can not be allcated.

Corrective action:

A driver or kernel has a fault or memory is insufficient.

Collect the data for investigation (dump or fjsnap). Contact your sales representative or a field engineer.

Severity :

Warning

Action:

(/ /T/S)

12213

lpfc:xxxx:xx:xx.x Adapter or Software error (Failed setup of slow-path ELS WQ)

Meaning:

The setting for Slow path ELS WQ is failed.

Corrective action:

HBA has some fault or memory is insufficient.

Collect the data for investigation (dump or fjsnap). Contact your sales representative or a field engineer.

Severity :

Warning

Action:

(/ /T/S)

12214

lpfc:xxxx:xx:xx.x Software error (Fast-path FCP WQ not allocated)

Meaning:

Memory (Fast path FCP WQ) can not be allcated.

Corrective action:

A driver or kernel has a fault or memory is insufficient.

Collect the data for investigation (dump or fjsnap). Contact your sales representative or a field engineer.

Severity :

Warning

Action:

(/ /T/S)

12215

lpfc:xxxx:xx:xx.x Adapter or Software error (Failed setup of fast-path)

Meaning:

The setting for Fast path FCP WQ is failed.

Corrective action:

HBA has some fault or memory is insufficient.

Collect the data for investigation (dump or fjsnap). Contact your sales representative or a field engineer.

Severity :

Warning

Action:

(/ /T/S)

12216

lpfc:xxxx:xx:xx.x Software error (Receive Queue not allocated)

Meaning:

Memory (USL RQ) can not be allcated.

Corrective action:

A driver or kernel has a fault or memory is insufficient.

Collect the data for investigation (dump or fjsnap). Contact your sales representative or a field engineer.

Severity :

Warning

Action:

(/ /T/S)

12217

lpfc:xxxx:xx:xx.x Adapter or Software error (Failed setup of Receive Queue)

Meaning:

The setting for USL RQ is failed.

Corrective action:

HBA has some fault or memory is insufficient.

Collect the data for investigation (dump or fjsnap). Contact your sales representative or a field engineer.

Severity：

Warning

Action:

(/ /T/S)

12218

lpfc:xxxx:xx:xx.x Adapter or Software error (Error during rpi post operation)

Meaning:

Error is occurred during rpi post operation

Corrective action:

HBA has some fault or memory is insufficient.

Collect the data for investigation (dump or fjsnap). Contact your sales representative or a field engineer.

Severity：

Warning

Action:

(/ /T/S)

12219

lpfc:xxxx:xx:xx.x Adapter or Software error (Invalid asynchronous event code)

Meaning:

Invalid asynchronous event code is detected.

Corrective action:

HBA has some fault or memory is insufficient.

Collect the data for investigation (dump or fjsnap). Contact your sales representative or a field engineer.

Severity :

Warning

Action:

(/ /T/S)

12220

lpfc:xxxx:xx:xx.x Adapter or Software error (Unregister FCFI command failed status)

Meaning:

Unresigter FCFI command is failed to delete status.

Corrective action:

HBA has some fault or memory is insufficient.

Collect the data for investigation (dump or fjsnap). Contact your sales representative or a field engineer.

Severity :

Warning

Action:

(/ /T/S)

12221

lpfc:xxxx:xx:xx.x Adapter or Software error (Failure HBA POST Status)

Meaning:

Failed to add HBA.

Corrective action:

HBA has some fault or memory is insufficient.

Collect the data for investigation (dump or fjsnap). Contact your sales representative or a field engineer.

Severity :

Warning

Action:

(/ /T/S)

12222

lpfc:xxxx:xx:xx.x Adapter error (HBA Unrecoverable error) vendor-id=10DF device-id=%d revision=%r

Meaning:

HBA Unrecoverable error is occurred.

Corrective action:

Hardware failure is occurred on HBA, please replace HBA.

If this message is also detected after replace HBA, collect the data for investigation (dump or fjsnap). Contact your sales representative or a field engineer.

Severity :

Warning

Action:

(R/M/T/S)

12223

lpfc:xxxx:xx:xx.x Software error (Failed to allocate non-embedded SGE array)

Meaning:

Memory (non-embedded SGE array) can not be allcated.

Corrective action:

A driver or kernel has a fault or memory is insufficient.

Collect the data for investigation (dump or fjsnap). Contact your sales representative or a field engineer.

Severity :

Warning

Action:

(/ /T/S)

12224

lpfc:xxxx:xx:xx.x Adapter or Software error (READ_REV Error)

Meaning:

Failed to read SLI level

Current SLI level is displayed.

SLI level which make effective FcoE is displayed.

Corrective action:

Please confirm SLI level supported by HBA and driver is correct.

Severity :

Warning

Action:

(/ /T/S)

12225

lpfc:xxxx:xx:xx.x Adapter or Software error (READ_SPARAM command failed)

Meaning:

Command to read system parameter is failed.

Corrective action:

HBA has some fault or memory is insufficient.

Collect the data for investigation (dump or fjsnap). Contact your sales representative or a field engineer.

Severity :

Warning

Action:

(/ /T/S)

12226

lpfc:xxxx:xx:xx.x Adapter or Software error (Error during sgl post operation)

Meaning:

Error is occurred during SGL post operation.

Corrective action:

HBA has some fault or memory is insufficient.

Collect the data for investigation (dump or fjsnap). Contact your sales representative or a field engineer.

Severity :

Warning

Action:

(/ /T/S)

12227

lpfc:xxxx:xx:xx.x Adapter or Software error (Error during rpi post operation)

Meaning:

Error is occurred during RPI post operation.

Corrective action:

HBA has some fault or memory is insufficient.

Collect the data for investigation (dump or fjsnap). Contact your sales representative or a field engineer.

Severity :

Warning

Action:

(/ /T/S)

12228

lpfc:xxxx:xx:xx.x Adapter or Software error (Error during queue setup)

Meaning:

Error is occurred during queue setup.

Corrective action:

HBA has some fault or memory is insufficient.

Collect the data for investigation (dump or fjsnap). Contact your sales representative or a field engineer.

Severity :

Warning

Action:

(/ /T/S)

12229

lpfc:xxxx:xx:xx.x Adapter or Software error (Invalid param)

Meaning:

Invalid paramter is detected and processing is rejected.

Corrective action:

HBA has some fault or memory is insufficient.

Collect the data for investigation (dump or fjsnap). Contact your sales representative or a field engineer.

Severity :

Warning

Action:

(/ /T/S)

12230

lpfc:xxxx:xx:xx.x Adapter or Software error (POST_SGL mailbox failed)

Meaning:

POST_SGL mailbox process is failed.

Corrective action:

HBA has some fault or memory is insufficient.

Collect the data for investigation (dump or fjsnap). Contact your sales representative or a field engineer.

Severity :

Warning

Action:

(/ /T/S)

12231

lpfc:xxxx:xx:xx.x Adapter or Software error (REMOVE_ALL_SGL_PAGES mailbox failed)

Meaning:

Process REMOVE_ALL_SGL_PAGES is failed.

Corrective action:

HBA has some fault or memory is insufficient.

Collect the data for investigation (dump or fjsnap). Contact your sales representative or a field engineer.

Severity :

Warning

Action:

(/ /T/S)

12232

lpfc:xxxx:xx:xx.x Adapter or Software error (Mailbox command cannot issue Data)

Meaning:

Mailbox command can not be issued.

Corrective action:

HBA has some fault or memory is insufficient.

Collect the data for investigation (dump or fjsnap). Contact your sales representative or a field engineer.

Severity :

Warning

Action:

(/ /T/S)

12233

lpfc:xxxx:xx:xx.x Software error (Failed to allocate mbox cmd memory)

Meaning:

Memory (mailbox command) can not be allocated.

Corrective action:

A driver or kernel has a fault or memory is insufficient.

Collect the data for investigation (dump or fjsnap). Contact your sales representative or a field engineer.

Severity :

Warning

Action:

(/ /T/S)

12234

lpfc:xxxx:xx:xx.x Software error (Allocated DMA memory size is less than the requested DMA memory size)

Meaning:

Memory is allocated less than requested.

Corrective action:

A driver or kernel has a fault or memory is insufficient.

Collect the data for investigation (dump or fjsnap). Contact your sales representative or a field engineer.

Severity :

Warning

Action:

(/ /T/S)

12235

lpfc:xxxx:xx:xx.x Adapter or Software error (POST_SGL_BLOCK mailbox command failed)

Meaning:

POST_SGL_BLOCK mailbox command is failed.

Corrective action:

HBA has some fault or memory is insufficient.

Collect the data for investigation (dump or fjsnap). Contact your sales representative or a field engineer.

Severity :

Warning

Action:

(/ /T/S)

12236

lpfc:xxxx:xx:xx.x Software error (Unable to allocate memory for issuing SLI_CONFIG_SPECIAL mailbox command)

Meaning:

Necessary memory size for issuing SLI_CONFIG_SPECIAL mailbox can not be allocated.

Corrective action:

A driver or kernel has a fault or memory is insufficient.

Collect the data for investigation (dump or fjsnap). Contact your sales representative or a field engineer.

Severity :

Warning

Action:

(/ /T/S)

12237

lpfc:xxxx:xx:xx.x Adapter or Software error (POST_RPI_HDR mailbox failed)

Meaning:

POST_RPI_HDR mailbox process is failed.

Corrective action:

HBA has some fault or memory is insufficient.

Collect the data for investigation (dump or fjsnap). Contact your sales representative or a field engineer.

Severity :

Warning

Action:

(/ /T/S)

12238

lpfc:xxxx:xx:xx.x Adapter error (posting all rpi headers) vendor-id=10DF device-id=%d revision=%r

Meaning:

Filed to add for all RPI resource.

Corrective action:

Hardware failure is occurred on HBA, please replace HBA.

If this message is also detected after replace HBA, collect the data for investigation (dump or fjsnap). Contact your sales representative or a field engineer.

Severity :

Warning

Action:

(R/M/T/S)

12239

lpfc:xxxx:xx:xx.x Adapter or Software error (Resume RPI Mailbox failed)

Meaning:

Failed to resume RPI mailbox process.

Corrective action:

HBA has some fault or memory is insufficient.

Collect the data for investigation (dump or fjsnap). Contact your sales representative or a field engineer.

Severity :

Warning

Action:

(/ /T/S)

12240

lpfc:xxxx:xx:xx.x Software error (Failed to allocate mbox for ADD_FCF cmd)

Meaning:

Memory (ADD_FCF command) can not be allocated.

Corrective action:

A driver or kernel has a fault or memory is insufficient.

Collect the data for investigation (dump or fjsnap). Contact your sales representative or a field engineer.

Severity :

Warning

Action:

(/ /T/S)

12241

lpfc:xxxx:xx:xx.x Adapter or Software error (ADD_FCF_RECORD mailbox failed)

Meaning:

ADD_FCF_RECORD mailbox process is failed.

Corrective action:

HBA has some fault or memory is insufficient.

Collect the data for investigation (dump or fjsnap). Contact your sales representative or a field engineer.

Severity :

Warning

Action:

(/ /T/S)

12242

lpfc:xxxx:xx:xx.x Adapter or Software error (INIT VPI Mailbox failed)

Meaning:

INIT VPI mailbox process is failed.

Corrective action:

HBA has some fault or memory is insufficient.

Collect the data for investigation (dump or fjsnap). Contact your sales representative or a field engineer.

Severity :

Warning

Action:

(/ /T/S)

12243

lpfc:xxxx:xx:xx.x Software error (Failed to allocate mbox for READ_FCF cmd)

Meaning:

Memory (READ_FCF command) can not be allocated.

Corrective action:

A driver or kernel has a fault or memory is insufficient.

Collect the data for investigation (dump or fjsnap). Contact your sales representative or a field engineer.

Severity :

Warning

Action:

(/ /T/S)

7. 2. 7. SCSI messages [Linux]

This section lists SCSI-related messages.

13001

mptscsih:iocx Software error (Unexpected msg function reply received)

Meaning:

An undefined function is specified in a reply frame.

Corrective action:

A driver has a fault. If the error keeps recurring, contact your sales representative or a field engineer.

Severity:

Warning

Action:

(/ /T/S)

13003

mptscsih: Software error (Insufficient memory to add adapter)

Meaning:

A memory shortage was detected during adapter installation.

Corrective action:

A driver or kernel has a fault. If the error keeps recurring, contact your sales representative or a field engineer.

Severity:

Warning

Action:

(/ /T/S)

13005

mptscsih: Software error (Unable to map adapter memory)

Meaning:

I/O address remapping failed during adapter installation.

Corrective action:

A driver or kernel has a fault. If the error keeps recurring, contact your sales representative or a field engineer.

Severity:

Warning

Action:

(/ /T/S)

13006

mptscsih:iocx Software error (Unable allocate interrupt)

Meaning:

An IRQ could not be acquired during adapter installation.

Corrective action:

A driver or kernel has a fault. If the error keeps recurring, contact your sales representative or a field engineer.

Severity:

Warning

Action:

(/ /T/S)

13007

mptscsih:iocx Adapter error (Not initialize properly) vendor-id=1000 device-id=%d revision=%r

Meaning:

Adapter initialization failed during adapter installation.

%d: (Example) 0030

%r: Numerical value (1 to 3 digits)

Corrective action:

The HBA must be replaced. If the error keeps recurring, contact your sales representative or a field engineer.

Severity:

Warning

Action:

(R/M/T/S)

13008

mptscsih:iocx Adapter error (pci-suspend: IOC msg unit reset failed) vendor-id=1000 device-id=%d revision=%r

Meaning:

The IOC message unit reset process failed.

%d: (Example) 0030

%r: Numerical value (1 to 3 digits)

Corrective action:

The HBA must be replaced. If the error keeps recurring, contact your sales representative or a field engineer.

Severity:

Warning

Action:

(R/M/T/S)

13009

mptscsih:iocx Adapter error (pci-resume: Cannot recover) vendor-id=1000 device-id=%d revision=%r

Meaning:

A resume operation on the adapter failed.

%d: (Example) 0030

%r: Numerical value (1 to 3 digits)

Corrective action:

The HBA must be replaced. If the error keeps recurring, contact your sales representative or a field engineer.

Severity:

Warning

Action:

(R/M/T/S)

13010

mptscsih:iocx Software error (Owned by PEER..skipping)

Meaning:

Adapter recovery is already in progress.

Corrective action:

A driver has a fault. If the error keeps recurring, contact your sales representative or a field engineer.

Severity:

Warning

Action:

(/ /T/S)

13011

mptscsih:iocx Adapter error (Adapter not ready) vendor-id=1000 device-id=%d revision=%r

Meaning:

The adapter does not become READY.

%d: (Example) 0030

%r: Numerical value (1 to 3 digits)

Corrective action:

The HBA must be replaced. If the error keeps recurring, contact your sales representative or a field engineer.

Severity:

Warning

Action:

(R/M/T/S)

13012

mptscsih:iocx Adapter error (Adapter not ready) vendor-id=1000 device-id=%d revision=%r

Meaning:

The adapter does not become READY (alt port).

%d: (Example) 0030

%r: Numerical value (1 to 3 digits)

Corrective action:

The HBA must be replaced. If the error keeps recurring, contact your sales representative or a field engineer.

Severity:

Warning

Action:

(R/M/T/S)

13013

mptscsih:iocx Software error (FIFO mgmt alloc)

Meaning:

Initialization of the IOC request and the reply FIFO failed.

Corrective action:

A driver has a fault. If the error keeps recurring, contact your sales representative or a field engineer.

Severity:

Warning

Action:

(/ /T/S)

13014

mptscsih:iocx Adapter error (init failure) vendor-id=1000 device-id=%d revision=%r

Meaning:

Sending an IOCInit request to the adapter failed.

%d: (Example) 0030

%r: Numerical value (1 to 3 digits)

Corrective action:

The HBA must be replaced. If the error keeps recurring, contact your sales representative or a field engineer.

Severity:

Warning

Action:

(R/M/T/S)

13016

mptscsih: Software error (Already bound %s)

Meaning:

In the process for detecting PCI data duplication, the alternate controller pointer of the merge source has already been set. Or, the alternate controller pointer of the merge source has already been set.

%s: [RHEL5.5] iocx <==> iocy

[RHEL5.3 to 5.4] iocx

iocx, iocy: adapter name (e.g., "ioc0")

Corrective action:

A driver has a fault. If the error keeps recurring, contact your sales representative or a field engineer.

Severity:

Warning

Action:

(/ /T/S)

13018

mptscsih:iocx Adapter error (Unexpected doorbell active) vendor-id=1000 device-id=%d revision=%r

Meaning:

An unexpected active state of the adapter was detected.

%d: (Example) 0030

%r: Numerical value (1 to 3 digits)

Corrective action:

The HBA must be replaced. If the error keeps recurring, contact your sales representative or a field engineer.

Severity:

Warning

Action:

(R/M/T/S)

13019

mptscsih:iocx Adapter error (IOC is in FAULT state) vendor-id=1000 device-id=%d revision=%r

Meaning:

The adapter state changed to fault.

%d: (Example) 0030

%r: Numerical value (1 to 3 digits)

Corrective action:

If message 13041 is output after this message, take corrective action as described in message 13041. Otherwise, no action is necessary.

Severity:

Info

Action:

(/ / /S)

13020

mptscsih:iocx Adapter error (IOC msg unit reset failed) vendor-id=1000 device-id=%d revision=%r

Meaning:

An IOC Message Unit Reset request sent to the adapter failed.

%d: (Example) 0030

%r: Numerical value (1 to 3 digits)

Corrective action:

The HBA must be replaced. If the error keeps recurring, contact your sales representative or a field engineer.

Severity:

Warning

Action:

(R/M/T/S)

13021

mptscsih:iocx Adapter error (IO unit reset failed) vendor-id=1000 device-id=%d revision=%r

Meaning:

An IO Unit Reset request sent to the adapter failed.

%d: (Example) 0030

%r: Numerical value (1 to 3 digits)

Corrective action:

The HBA must be replaced. If the error keeps recurring, contact your sales representative or a field engineer.

Severity:

Warning

Action:

(R/M/T/S)

13022

mptscsih:iocx Adapter error (Wait IOC_READY state timeout) vendor-id=1000 device-id=%d revision=%r

Meaning:

The state did not change to IOC_READY even after a wait for the specified time (15 seconds).

%d: (Example) 0030

%r: Numerical value (1 to 3 digits)

Corrective action:

The HBA must be replaced. If the error keeps recurring, contact your sales representative or a field engineer.

Severity:

Warning

Action:

(R/M/T/S)

13023

mptscsih:iocx Adapter error (Can't get IOCFacts; IOC NOT READY) vendor-id=1000 device-id=%d revision=%r

Meaning:

The IOCFACTS request cannot be executed because the adapter is in the NOT READY state.

%d: (Example) 0030

%r: Numerical value (1 to 3 digits)

Corrective action:

The HBA must be replaced. If the error keeps recurring, contact your sales representative or a field engineer.

Severity:

Warning

Action:

(R/M/T/S)

13024

mptscsih:iocx Software error (IOC reported invalid 0 request size)

Meaning:

The request frame size of the IOCFACTS request is set to 0.

Corrective action:

A driver has a fault. If the error keeps recurring, contact your sales representative or a field engineer.

Severity:

Warning

Action:

(/ /T/S)

13025

mptscsih:iocx Adapter error (Invalid IOC facts reply) vendor-id=1000 device-id=%d revision=%r

Meaning:

The response to an IOCFACTS request is invalid.

%d: (Example) 0030

%r: Numerical value (1 to 3 digits)

Corrective action:

The HBA must be replaced. If the error keeps recurring, contact your sales representative or a field engineer.

Severity:

Warning

Action:

(R/M/T/S)

13026

mptscsih:iocx Adapter error (Can't get IOCFacts; IOC NOT READY) vendor-id=1000 device-id=%d revision=%r

Meaning:

The PORTFACTS request cannot be executed because the adapter is in the NOT READY state.

%d: (Example) 0030

%r: Numerical value (1 to 8 digits)

Corrective action:

The HBA must be replaced. If the error keeps recurring, contact your sales representative or a field engineer.

Severity:

Warning

Action:

(R/M/T/S)

13027

mptscsih:iocx Adapter error (Wait IOC_OP state timeout) vendor-id=1000 device-id=%d revision=%r

Meaning:

The state did not change to IOC_OP even after a wait for the specified time (60 seconds).

%d: (Example) 0030

%r: Numerical value (1 to 3 digits)

Corrective action:

The HBA must be replaced. If the error keeps recurring, contact your sales representative or a field engineer.

Severity:

Warning

Action:

(R/M/T/S)

13028

mptscsih:iocx Adapter error (Failed to come READY after reset) vendor-id=1000 device-id=%d revision=%r

Meaning:

The state did not change to READY even after a wait of 20 seconds after adapter reset.

%d: (Example) 0030

%r: Numerical value (1 to 3 digits)

Corrective action:

The HBA must be replaced. If the error keeps recurring, contact your sales representative or a field engineer.

Severity:

Warning

Action:

(R/M/T/S)

13029

mptscsih:iocx Adapter error (Enable Diagnostic mode FAILED) vendor-id=1000 device-id=%d revision=%r

Meaning:

The adapter did not enter diagnostic mode even after 20 retries.

%d: (Example) 0030

%r: Numerical value (1 to 3 digits)

Corrective action:

The HBA must be replaced. If the error keeps recurring, contact your sales representative or a field engineer.

Severity:

Warning

Action:

(R/M/T/S)

13031

mptscsih:iocx Adapter error (ResetHistory bit failed to clear) vendor-id=1000 device-id=%d revision=%r

Meaning:

The ResetHistory bit of the adapter could not be cleared.

%d: (Example) 0030

%r: Numerical value (1 to 3 digits)

Corrective action:

The HBA must be replaced. If the error keeps recurring, contact your sales representative or a field engineer.

Severity:

Warning

Action:

(R/M/T/S)

13032

mptscsih:iocx Adapter error (Diagnostic reset FAILED) vendor-id=1000 device-id=%d revision=%r

Meaning:

The diagnostic reset of the adapter failed.

%d: (Example) 0030

%r: Numerical value (1 to 3 digits)

Corrective action:

The HBA must be replaced. If the error keeps recurring, contact your sales representative or a field engineer.

Severity:

Warning

Action:

(R/M/T/S)

13034

mptscsih:iocx Software error (Unable to allocate Reply Request; Chain Buffers)

Meaning:

Buffer allocation to the adapter failed.

Corrective action:

A driver or kernel has a fault. If the error keeps recurring, contact your sales representative or a field engineer.

Severity:

Warning

Action:

(/ /T/S)

13035

mptscsih:iocx Software error (Unable to allocate Sense Buffers)

Meaning:

Sense buffer allocation to the adapter failed.

Corrective action:

A driver or kernel has a fault. If the error keeps recurring, contact your sales representative or a field engineer.

Severity:

Warning

Action:

(/ /T/S)

13036

mptscsih:iocx Adapter error (Doorbell ACK timeout) vendor-id=1000 device-id=%d revision=%r

Meaning:

The adapter could not clear the Doorbell_S status bit.

%d: (Example) 0030

%r: Numerical value (1 to 3 digits)

Corrective action:

The HBA must be replaced. If the error keeps recurring, contact your sales representative or a field engineer.

Severity:

Warning

Action:

(R/M/T/S)

13037

mptscsih:iocx Adapter error (Doorbell INT timeout) vendor-id=1000 device-id=%d revision=%r

Meaning:

The adapter could not set the Doorbell_INT status bit.

%d: (Example) 0030

%r: Numerical value (1 to 3 digits)

Corrective action:

The HBA must be replaced. If the error keeps recurring, contact your sales representative or a field engineer.

Severity:

Warning

Action:

(R/M/T/S)

13038

mptscsih:iocx Adapter error (Handshake reply failure) vendor-id=1000 device-id=%d revision=%r

Meaning:

Handshake reply to/from the adapter failed.

%d: (Example) 0030

%r: Numerical value (1 to 3 digits)

Corrective action:

The HBA must be replaced. If the error keeps recurring, contact your sales representative or a field engineer.

Severity:

Warning

Action:

(R/M/T/S)

13040

mptscsih:iocx Adapter error (Firmware Reload FAILED) vendor-id=1000 device-id=%d revision=%r

Meaning:

The firmware reload failed.

%d: (Example) 0030

%r: Numerical value (1 to 3 digits)

Corrective action:

The HBA must be replaced. If the error keeps recurring, contact your sales representative or a field engineer.

Severity:

Warning

Action:

(R/M/T/S)

13041

mptscsih:iocx Adapter error (Cannot recover) vendor-id=1000 device-id=%d revision=%r

Meaning:

The adapter reset failed.

%d: (Example) 0030

%r: Numerical value (1 to 3 digits)

Corrective action:

The HBA must be replaced. If the error keeps recurring, contact your sales representative or a field engineer.

Severity:

Warning

Action:

(R/M/T/S)

13042

mptscsih:iocx Adapter error (LogInfo) vendor-id=1000 device-id=%d revision=%r

Meaning:

The LogInfo information (for SCSI) returned from the adapter is displayed.

%d: (Example) 0030

%r: Numerical value (1 to 3 digits)

Corrective action:

Display the error information (LogInfo) from the HBA. This message reports the isolation for a failure occurrence, so the message alone does not require any corrective action.

Severity:

Warning

Action:

(/ /T/S)

13044

mptscsih: Software error (Unable to copy mpt_ioctl_header data)

Meaning:

The header data of the ioctl command cannot be read from the user space.

Corrective action:

An API and driver are not compatible. Check the API and driver version numbers.

Severity:

Warning

Action:

(/ /T/S)

13045

mptscsih: Software error (Unable to copy mpt_ioctl_diag_reset struct)

Meaning:

The structure of the ioctl command for HardReset cannot be read from the user space.

Corrective action:

An API and driver are not compatible. Check the API and driver version numbers.

Severity:

Warning

Action:

(/ /T/S)

13046

mptscsih: Adapter error (reset Failed)

Meaning:

The adapter reset failed.

Corrective action:

The HBA must be replaced. If the error keeps recurring, contact your sales representative or a field engineer.

Severity:

Warning

Action:

(/ /T/S)

13047

mptscsih: Software error (Unable to copy mpt_fw_xfer struct)

Meaning:

The structure of the ioctl command for downloading firmware cannot be read from the user space.

Corrective action:

An API and driver are not compatible. Check the API and driver version numbers.

Severity:

Warning

Action:

(/ /T/S)

13048

mptscsih: Software error (Unable to copy f/w buffer hunk)

Meaning:

Firmware cannot be read from the user space.

Corrective action:

An API and driver are not compatible. Check the API and driver version numbers.

Severity:

Warning

Action:

(/ /T/S)

13049

mptscsih:iocx Adapter error (IOC says it doesn't support F/W download) vendor-id=1000 device-id=%d revision=%r

Meaning:

A response that invalidates the download request sent to firmware was received. (Firmware download is not supported.)

%d: (Example) 0030

%r: Numerical value (1 to 3 digits)

Corrective action:

The HBA must be replaced. If the error keeps recurring, contact your sales representative or a field engineer.

Severity:

Warning

Action:

(R/M/T/S)

13050

mptscsih:iocx Adapter error (IOC says: IOC_BUSY) vendor-id=1000 device-id=%d revision=%r

Meaning:

A busy response to the firmware download request was received.

%d: (Example) 0030

%r: Numerical value (1 to 3 digits)

Corrective action:

The HBA must be replaced. If the error keeps recurring, contact your sales representative or a field engineer.

Severity:

Warning

Action:

(R/M/T/S)

13051

mptscsih:iocx Adapter error (IOC returned bad status) vendor-id=1000 device-id=%d revision=%r

Meaning:

An "Other error" response to the firmware download request was received.

%d: (Example) 0030

%r: Numerical value (1 to 3 digits)

Corrective action:

The HBA must be replaced. If the error keeps recurring, contact your sales representative or a field engineer.

Severity:

Warning

Action:

(R/M/T/S)

13052

mptscsih: Software error (Not enough memory)

Meaning:

Memory cannot be allocated for SGL.

Corrective action:

A driver has a fault. If the error keeps recurring, contact your sales representative or a field engineer.

Severity:

Warning

Action:

(/ /T/S)

13053

mptscsih: Software error (Chain required)

Meaning:

SGL has run out of chains.

Corrective action:

A driver has a fault. If the error keeps recurring, contact your sales representative or a field engineer.

Severity:

Warning

Action:

(/ /T/S)

13054

mptscsih: Software error (Too many SG frags)

Meaning:

There are too many SG frags.

Corrective action:

A driver has a fault. If the error keeps recurring, contact your sales representative or a field engineer.

Severity:

Warning

Action:

(/ /T/S)

13055

mptscsih: Software error (No memory available)

Meaning:

Memory acquisition failed.

Corrective action:

A driver or kernel has a fault. If the error keeps recurring, contact your sales representative or a field engineer.

Severity:

Warning

Action:

(/ /T/S)

13056

mptscsih: Software error (Unable to read in mpt_ioctl_iocinfo struct)

Meaning:

The structure of the ioctl command for GetIOCInfo cannot be read from the user space.

Corrective action:

An API and driver are not compatible. Check the API and driver version numbers.

Severity:

Warning

Action:

(/ /T/S)

13057

mptscsih: Software error (Structure size mismatch)

Meaning:

The size of the structure of GetIOCInfo does not match.

Corrective action:

An API and driver are not compatible. Check the API and driver version numbers.

Severity:

Warning

Action:

(/ /T/S)

13058

mptscsih: Software error (Unable to write out mpt_ioctl_iocinfo struct)

Meaning:

The retrieved IOCInfo cannot be written back to the user space.

Corrective action:

An API and driver are not compatible. Check the API and driver version numbers.

Severity:

Warning

Action:

(/ /T/S)

13059

mptscsih: Software error (Unable to read in mpt_ioctl_targetinfo struct)

Meaning:

The structure of the ioctl command for GetTargetInfo cannot be read from the user space.

Corrective action:

An API and driver are not compatible. Check the API and driver version numbers.

Severity:

Warning

Action:

(/ /T/S)

13060

mptscsih: Software error (No memory available)

Meaning:

Memory for GetTargetInfo could not be found. (Free memory could not be found.)

Corrective action:

An API and driver are not compatible. Check the API and driver version numbers.

Severity:

Warning

Action:

(/ /T/S)

13064

mptscsih: Software error (Unable to write out mpt_ioctl_targetinfo struct)

Meaning:

The retrieved TargetInfo cannot be written back to the user space.

Corrective action:

An API and driver are not compatible. Check the API and driver version numbers.

Severity:

Warning

Action:

(/ /T/S)

13066

mptscsih: Software error (Unable to read in mpt_ioctl_test struct)

Meaning:

The structure of the ioctl command for ReadTest cannot be read from the user space.

Corrective action:

An API and driver are not compatible. Check the API and driver version numbers.

Severity:

Warning

Action:

(/ /T/S)

13067

mptscsih: Software error (Unable to write out mpt_ioctl_test struct)

Meaning:

The structure of the ioctl command for ReadTest cannot be written back to the user space.

Corrective action:

An API and driver are not compatible. Check the API and driver version numbers.

Severity:

Warning

Action:

(/ /T/S)

13068

mptscsih: Software error (Unable to read in mpt_ioctl_eventquery struct)

Meaning:

The structure of the ioctl command for EventQuery cannot be read from the user space.

Corrective action:

An API and driver are not compatible. Check the API and driver version numbers.

Severity:

Warning

Action:

(/ /T/S)

13069

mptscsih: Software error (Unable to write out mpt_ioctl_eventquery struct)

Meaning:

The structure of the ioctl command for EventQuery cannot be written back to the user space.

Corrective action:

An API and driver are not compatible. Check the API and driver version numbers.

Severity:

Warning

Action:

(/ /T/S)

13070

mptscsih: Software error (Unable to read in mpt_ioctl_eventenable struct)

Meaning:

The structure of the ioctl command for EventEnable cannot be read from the user space.

Corrective action:

An API and driver are not compatible. Check the API and driver version numbers.

Severity:

Warning

Action:

(/ /T/S)

13071

mptscsih: Software error (Insufficient memory to add adapter)

Meaning:

Memory for EventEnable cannot be acquired.

Corrective action:

A driver has a fault. If the error keeps recurring, contact your sales representative or a field engineer.

Severity:

Warning

Action:

(/ /T/S)

13072

mptscsih: Software error (Unable to read in mpt_ioctl_eventreport struct)

Meaning:

The structure of the ioctl command for EventReport cannot be read from the user space.

Corrective action:

An API and driver are not compatible. Check the API and driver version numbers.

Severity:

Warning

Action:

(/ /T/S)

13073

mptscsih: Software error (Unable to write out mpt_ioctl_eventreport struct)

Meaning:

The structure of the ioctl command for EventReport cannot be written back to the user space.

Corrective action:

An API and driver are not compatible. Check the API and driver version numbers.

Severity:

Warning

Action:

(/ /T/S)

13074

mptscsih: Software error (Unable to read in mpt_ioctl_replace_fw struct)

Meaning:

The structure of the ioctl command for ReplaceFW cannot be read from the user space.

Corrective action:

An API and driver are not compatible. Check the API and driver version numbers.

Severity:

Warning

Action:

(/ /T/S)

13075

mptscsih: Software error (Unable to read in mpt_ioctl_replace_fw image)

Meaning:

The firmware for the ioctl command for ReplaceFW cannot be read from the user space.

Corrective action:

An API and driver are not compatible. Check the API and driver version numbers.

Severity:

Warning

Action:

(/ /T/S)

13076

mptscsih: Software error (Unable to read in mpt_ioctl_command struct)

Meaning:

The structure of the ioctl command for MPTCommand cannot be read from the user space.

Corrective action:

An API and driver are not compatible. Check the API and driver version numbers.

Severity:

Warning

Action:

(/ /T/S)

13077

mptscsih: Software error (No memory available during Software init)

Meaning:

No memory is available during software initialization.

Corrective action:

A driver or kernel has a fault. If the error keeps recurring, contact your sales representative or a field engineer.

Severity:

Warning

Action:

(/ /T/S)

13078

mptscsih: Adapter error (Busy with IOC Reset)

Meaning:

The adapter is performing IOC Reset and is in the busy state.

Corrective action:

Collect the data for investigation (dump or fjsnap). Contact your sales representative or a field engineer. Replace the adapter.

Severity:

Warning

Action:

(R/M/T/S)

13079

mptscsih: Software error (Request frame too large)

Meaning:

The size of the request frame specified by the ioctl command exceeds the maximum value.

Corrective action:

An API and driver are not compatible. Check the API and driver version numbers.

Severity:

Warning

Action:

(/ /T/S)

13080

mptscsih: Software error (Unable to read MF from mpt_ioctl_command struct)

Meaning:

The Message Frame of the ioctl command cannot be read from the user space.

Corrective action:

An API and driver are not compatible. Check the API and driver version numbers.

Severity:

Warning

Action:

(/ /T/S)

13081

mptscsih: Software error (Target ID out of bounds)

Meaning:

The value of the target ID specified in a SCSIIO request is outside its range.

Corrective action:

An API and driver are not compatible. Check the API and driver version numbers.

Severity:

Warning

Action:

(/ /T/S)

13082

mptscsih: Software error (SCSI driver is not loaded)

Meaning:

A SCSIIO request was specified, but the SCSI driver was not loaded.

Corrective action:

Load the SCSI driver.

Severity:

Warning

Action:

(/ /T/S)

13084

mptscsih: Adapter or Software error (SCSI driver not loaded or SCSI host not found)

Meaning:

A SCSI Task Management request was specified, but the SCSI driver was not loaded or the SCSI host could not be found.

Corrective action:

Load the SCSI driver or incorporate HBA.

Severity:

Warning

Action:

(/ /T/S)

13085

mptscsih: Software error (IOC_INIT issued with 1 or more incorrect parameters.Rejected)

Meaning:

The IOC Init request contains an invalid parameter.

Corrective action:

An API and driver are not compatible. Check the API and driver version numbers.

Severity:

Warning

Action:

(/ /T/S)

13086

mptscsih: Software error (Illegal request)

Meaning:

An undefined request (function) is specified in the ioctl command.

Corrective action:

An API and driver are not compatible. Check the API and driver version numbers.

Severity:

Warning

Action:

(/ /T/S)

13087

mptscsih: Software error (Unable to read user data struct)

Meaning:

The user data of the ioctl command cannot be read from the user space.

Corrective action:

An API and driver are not compatible. Check the API and driver version numbers.

Severity:

Warning

Action:

(/ /T/S)

13089

mptscsih: Software error (Unable to write out reply frame)

Meaning:

The Reply Frame of the ioctl command cannot be written to the user space.

Corrective action:

An API and driver are not compatible. Check the API and driver version numbers.

Severity:

Warning

Action:

(/ /T/S)

13090

mptscsih: Software error (Unable to write sense data to user)

Meaning:

The sense data of the ioctl command cannot be written to the user space.

Corrective action:

An API and driver are not compatible. Check the API and driver version numbers.

Severity:

Warning

Action:

(/ /T/S)

13091

mptscsih: Software error (Unable to write data to user)

Meaning:

The data of the ioctl command cannot be written to the user space.

Corrective action:

An API and driver are not compatible. Check the API and driver version numbers.

Severity:

Warning

Action:

(/ /T/S)

13092

mptscsih: Software error (Unable to read in hp_host_info struct)

Meaning:

The structure of the HPHostInfo command cannot be read from the user space.

Corrective action:

An API and driver are not compatible. Check the API and driver version numbers.

Severity:

Warning

Action:

(/ /T/S)

13093

mptscsih: Software error (Unable to write out hp_host_info)

Meaning:

The structure of the HPHostInfo command cannot be written to the user space.

Corrective action:

An API and driver are not compatible. Check the API and driver version numbers.

Severity:

Warning

Action:

(/ /T/S)

13094

mptscsih: Software error (Unable to read in hp_host_targetinfo struct)

Meaning:

The structure of the HPTargetInfo command cannot be read from the user space.

Corrective action:

An API and driver are not compatible. Check the API and driver version numbers.

Severity:

Warning

Action:

(/ /T/S)

13095

mptscsih: Software error (Unable to write out mpt_ioctl_targetinfo struct)

Meaning:

The structure of the HPTargetInfo command cannot be written to the user space.

Corrective action:

An API and driver are not compatible. Check the API and driver version numbers.

Severity:

Warning

Action:

(/ /T/S)

13096

mptscsih: Software error (Can't register misc device)

Meaning:

Misc device registration failed.

Corrective action:

A driver or kernel has a fault. If the error keeps recurring, contact your sales representative or a field engineer.

Severity:

Warning

Action:

(/ /T/S)

13099

mptscsih:iocx Software error (NULL ScsiCmd ptr)

Meaning:

The pointer value of the ScsiCmd parameter is invalid.

Corrective action:

A driver has a fault. If the error keeps recurring, contact your sales representative or a field engineer.

Severity:

Warning

Action:

(/ /T/S)

13106

mptscsih:iocx Adapter error (IOC issue of TaskMgmt failed) vendor-id=1000 device-id=%d revision=%r

Meaning:

Issuing a SCSI Task Management request failed.

%d: (Example) 0030

%r: Numerical value (1 to 3 digits)

Corrective action:

The HBA must be replaced. If the error keeps recurring, contact your sales representative or a field engineer.

Severity:

Warning

Action:

(R/M/T/S)

13107

mptscsih:iocx Adapter error (Error issuing abort task) vendor-id=1000 device-id=%d revision=%r

Meaning:

Issuing Abort Task failed.

%d: (Example) 0030

%r: Numerical value (1 to 3 digits)

Corrective action:

The HBA must be replaced. If the error keeps recurring, contact your sales representative or a field engineer.

Severity:

Warning

Action:

(R/M/T/S)

13111

mptscsih:iocx Software error (slave_alloc kmalloc FAILED)

Meaning:

Memory allocation for the host driver failed.

Corrective action:

A driver or kernel has a fault. If the error keeps recurring, contact your sales representative or a field engineer.

Severity:

Warning

Action:

(/ /T/S)

13114

mptscsih:iocx Software error (ScanDvComplete)

Meaning:

The pointer value of the request frame does not match the command pointer value.

Corrective action:

A driver has a fault. If the error keeps recurring, contact your sales representative or a field engineer.

Severity:

Warning

Action:

(/ /T/S)

13115

mptscsih:iocx Adapter error (Firmware Reload FAILED) vendor-id=1000 device-id=%d revision=%r

Meaning:

The firmware reload failed.

%d: (Example) 0030

%r: Numerical value (1 to 3 digits)

Corrective action:

The HBA must be replaced. If the error keeps recurring, contact your sales representative or a field engineer.

Severity:

Warning

Action:

(R/M/T/S)

13116

mptscsih:iocx Software error (Null cmdPtr)

Meaning:

The command pointer value is null.

Corrective action:

A driver has a fault. If the error keeps recurring, contact your sales representative or a field engineer.

Severity:

Warning

Action:

(/ /T/S)

13120

mptscsih:iocx Adapter error (detects pci parity error) vendor-id=1000 device-id=%d revision=%r

Meaning:

A parity error occurred during reading to PCI. Do you want to retry? (The message is output only once.)

%d: (Example) 0030

%r: Numerical value (1 to 3 digits)

Corrective action:

The HBA must be replaced. If the problem persists even after you replace the HBA, replace the device (e.g., PCI_Box) connected to the HBA.

Severity:

Warning

Action:

(R/M/T/S)

13121

mptscsih:iocx Adapter error (detects pci parity error) vendor-id=1000 device-id=%d revision=%r

Meaning:

A parity error occurred during reading to PCI. The operation ran out of retries.

%d: (Example) 0030

%r: Numerical value (1 to 3 digits)

Corrective action:

The HBA must be replaced. If the problem persists even after you replace the HBA, replace the device (e.g., PCI_Box) connected to the HBA.

Severity:

Warning

Action:

(R/M/T/S)

13122

mptscsih:iocx Adapter error (couldn't read pci register) vendor-id=1000 device-id=%d revision=%r

Meaning:

Reading of the PCI status register failed.

%d: (Example) 0030

%r: Numerical value (1 to 3 digits)

Corrective action:

The HBA must be replaced. If the problem persists even after you replace the HBA, replace the device (e.g., PCI_Box) connected to the HBA.

Severity:

Warning

Action:

(R/M/T/S)

13123

mptscsih:iocx Adapter error (detects pci parity error) vendor-id=1000 device-id=%d revision=%r

Meaning:

A parity error occurred during reading of the PCI status register. Do you want to retry? (The message is output only once.)

%d: (Example) 0030

%r: Numerical value (1 to 3 digits)

Corrective action:

The HBA must be replaced. If the problem persists even after you replace the HBA, replace the device (e.g., PCI_Box) connected to the HBA.

Severity:

Warning

Action:

(R/M/T/S)

13124

mptscsih:iocx Adapter error (detects pci parity error) vendor-id=1000 device-id=%d revision=%r

Meaning:

A parity error occurred during reading of the PCI status register. The operation ran out of retries.

%d: (Example) 0030

%r: Numerical value (1 to 3 digits)

Corrective action:

The HBA must be replaced. If the problem persists even after you replace the HBA, replace the device (e.g., PCI_Box) connected to the HBA.

Severity:

Warning

Action:

(R/M/T/S)

13125

mptscsih:iocx Adapter error (detects pci parity error) vendor-id=1000 device-id=%d revision=%r

Meaning:

A parity error was detected during a DMA transfer.

%d: (Example) 0030

%r: Numerical value (1 to 3 digits)

Corrective action:

The HBA must be replaced. If the problem persists even after you replace the HBA, replace the device (e.g., PCI_Box) connected to the HBA.

Severity:

Warning

Action:

(R/M/T/S)

13126

mptscsih:iocx Software error (Failed to alloc memory)

Meaning:

System memory acquisition failed.

Corrective action:

A driver or kernel has a fault. If the error keeps recurring, contact your sales representative or a field engineer.

Severity:

Warning

Action:

(/ /T/S)

13127

mptscsih:iocx Software error (PCI-MSI enabled)

Meaning:

The MSI (Message Signal Interrupt) function was enabled.

Corrective action:

No action is necessary.

Severity:

Warning

Action:

(/ /T/S)

13129

mptscsih:iocx Adapter error (Sending IOCInit failed) vendor-id=1000 device-id=%d revision=%r

Meaning:

The MPT request/reply wait process for the adapter failed.

%d: (Example) 0030

%r: Numerical value (1 to 3 digits)

Corrective action:

The HBA must be replaced. If the error keeps recurring, contact your sales representative or a field engineer.

Severity:

Warning

Action:

(R/M/T/S)

13130

mptscsih:iocx Adapter error (Sending PortEnable failed) vendor-id=1000 device-id=%d revision=%r

Meaning:

A PortEnable request sent to the adapter failed.

%d: (Example) 0030

%r: Numerical value (1 to 3 digits)

Corrective action:

The HBA must be replaced. If the error keeps recurring, contact your sales representative or a field engineer.

Severity:

Warning

Action:

(R/M/T/S)

13133

mptscsih:iocx Software error (Received a mf that was already freed)

Meaning:

An attempt to free a message frame was made, but the message frame is already free.

Corrective action:

A driver has a fault. If the error keeps recurring, contact your sales representative or a field engineer.

Severity:

Warning

Action:

(/ /T/S)

13134

mptscsih:iocx Adapter error (target reset) vendor-id=1000 device-id=%d revision=%r

Meaning:

The result of issuing Target Reset is displayed.

%d: (Example) 0030

%r: Numerical value (1 to 3 digits)

Corrective action:

The HBA must be replaced. If the error keeps recurring, contact your sales representative or a field engineer.

Severity:

Warning

Action:

(R/M/T/S)

13135

mptscsih:iocx Adapter error (bus reset) vendor-id=1000 device-id=%d revision=%r

Meaning:

The result of issuing Bus Reset is displayed.

%d: (Example) 0030

%r: Numerical value (1 to 3 digits)

Corrective action:

The HBA must be replaced. If the error keeps recurring, contact your sales representative or a field engineer.

Severity:

Warning

Action:

(R/M/T/S)

13137

mptscsih:iocx Adapter error (mpt_turbo_reply: Invalid cb_idx) vendor-id=1000 device-id=%d revision=%r

Meaning:

The cb_idx value is invalid (turbo reply).

%d: (Example) 0030

%r: Numerical value (1 to 3 digits)

Corrective action:

The HBA must be replaced. If the error keeps recurring, contact your sales representative or a field engineer.

Severity:

Warning

Action:

(R/M/T/S)

13138

mptscsih:iocx Adapter error (mpt_reply: Invalid cb_idx) vendor-id=1000 device-id=%d revision=%r

Meaning:

The cb_idx value is invalid (non-turbo reply).

%d: (Example) 0030

%r: Numerical value (1 to 3 digits)

Corrective action:

The HBA must be replaced. If the error keeps recurring, contact your sales representative or a field engineer.

Severity:

Warning

Action:

(R/M/T/S)

13139

mptscsih:iocx Adapter error (LogInfo) vendor-id=1000 device-id=%d revision=%r

Meaning:

The LogInfo information (for SAS) returned from the adapter FW is displayed.

%d: (Example) 0030

%r: Numerical value (1 to 3 digits)

Corrective action:

This message reports the isolation for a failure occurrence, so the message alone does not require any corrective action.

Severity:

Warning

Action:

(/ /T/S)

13140

mptscsih:iocx Adapter error (Skipping because it's not operational) vendor-id=1000 device-id=%d revision=%r

Meaning:

The adapter is not in the operational state.

%d: (Example) 0030

%r: Numerical value (1 to 3 digits)

Corrective action:

The HBA must be replaced. If the error keeps recurring, contact your sales representative or a field engineer.

Severity:

Warning

Action:

(R/M/T/S)

13141

mptscsih:iocx Adapter error (Skipping because it's disabled) vendor-id=1000 device-id=%d revision=%r

Meaning:

The adapter is in the Disable state.

%d: (Example) 0030

%r: Numerical value (1 to 3 digits)

Corrective action:

The HBA must be replaced. If the error keeps recurring, contact your sales representative or a field engineer.

Severity:

Warning

Action:

(R/M/T/S)

13142

mptscsih:iocx Adapter error (Skipping because SCSI Initiator mode is NOT enabled) vendor-id=1000 device-id=%d revision=%r

Meaning: The IOC is not in initiator mode.

%d: (Example) 0030

%r: Numerical value (1 to 3 digits)

Corrective action:

The HBA must be replaced. If the error keeps recurring, contact your sales representative or a field engineer.

Severity:

Warning

Action:

(R/M/T/S)

13143

mptscsih:iocx Software error (Unable to register controller with SCSI subsystem)

Meaning:

A controller cannot be registered.

Corrective action:

A driver or kernel may have a fault. If the error keeps recurring, contact your sales representative or a field engineer.

Severity:

Warning

Action:

(/ /T/S)

13144

mptscsih:iocx Software error (F/W Response)

Meaning:

The response (response code) of the Task Management command is displayed.

%d: (Example) 0030

%r: Numerical value (1 to 3 digits)

Corrective action:

This message reports the isolation for a failure occurrence, so the message alone does not require any corrective action.

Severity:

Warning

Action:

(/ /T/S)

13145

mptscsih: Software error (no msg frames)

Meaning:

Message frame acquisition for the SAS persist operation failed.

Corrective action:

A driver has a fault. If the error keeps recurring, contact your sales representative or a field engineer.

Severity:

Warning

Action:

(/ /T/S)

13146

mptscsih: Adapter error (operation failed)

Meaning:

The SAS persistent operation failed.

Corrective action:

Collect the data for investigation (dump or fjsnap). Contact your sales representative or a field engineer. Replace the adapter.

Severity:

Warning

Action:

(R/M/T/S)

13147

mptscsih: Adapter error (Controller disabled)

Meaning:

The controller is not in the active state.

Corrective action:

The HBA must be replaced. If the error keeps recurring, contact your sales representative or a field engineer.

Severity:

Warning

Action:

(R/M/T/S)

13149

mptscsih: Software error (Failed to register with Fusion MPT base driver)

Meaning:

Registration of a callback handler for the fusion MPT base driver failed.

Corrective action:

A driver has a fault. If the error keeps recurring, contact your sales representative or a field engineer.

Severity:

Warning

Action:

(/ /T/S)

13150

mptscsih: Software error (slave_alloc kzalloc failed)

Meaning:

System memory acquisition failed.

Corrective action:

A driver or kernel has a fault. If the error keeps recurring, contact your sales representative or a field engineer.

Severity:

Warning

Action:

(/ /T/S)

13151

mptscsih: Software error (dma_alloc_coherent for parameters failed)

Meaning:

System memory acquisition failed.

Corrective action:

A driver or kernel has a fault. If the error keeps recurring, contact your sales representative or a field engineer.

Severity:

Warning

Action:

(/ /T/S)

13152

mptscsih: Software error (mpt_config failed)

Meaning:

Issuing a config message failed.

Corrective action:

A driver or kernel has a fault. If the error keeps recurring, contact your sales representative or a field engineer.

Severity:

Warning

Action:

(/ /T/S)

13153

mptscsih:iocx Adapter error (readl: detects master abort) vendor-id=1000 device-id=%d revision=%r

Meaning:

A master abort occurred in PCI read. The operation ran out of retries.

%d: (Example) 0030

%r: Numerical value (1 to 3 digits)

Corrective action:

The HBA must be replaced. If the error keeps recurring, contact your sales representative or a field engineer.

Severity:

Warning

Action:

(R/M/T/S)

13160

mptscsih: Software error (Target Bus out of bounds)

Meaning:

The bus number value specified in a SCSIIO request is outside its range.

Corrective action:

An API and driver are not compatible. Check the API and driver version numbers.

Severity:

Warning

Action:

(/ /T/S)

13161

mptscsih: iocx Adapter error (IOC Not operational) vendor-id=1000 device-id=%d revision=%r

Meaning:

The adapter is not in the operational state.

%d: (Example) 0030

%r: Numerical value (1 to 3 digits)

Corrective action:

The HBA must be replaced. If the error keeps recurring, contact your sales representative or a field engineer.

Severity:

Warning

Action:

(R/M/T/S)

13163

mptscsih: iocx Adapter error (ioc_state: DOORBELL_ACTIVE) vendor-id=1000 device-id=%d revision=%r

Meaning:

The adapter has the DOORBELL_ACTIVE flag turned on.

%d: (Example) 0030

%r: Numerical value (1 to 3 digits)

Corrective action:

The HBA must be replaced. If the error keeps recurring, contact your sales representative or a field engineer.

Severity:

Warning

Action:

(R/M/T/S)

13164

mptscsih: Software error (lost hotplug event)

Meaning:

Memory acquisition for the hotplug process failed.

Corrective action:

A driver or kernel has a fault. If the error keeps recurring, contact your sales representative or a field engineer.

Severity:

Warning

Action:

(/ /T/S)

13173

mptscsih:iocx Adapter error (no suitable DMA mask) vendor-id=1000 device-id=%d revision=%r

Meaning:

An invalid DMA mask was detected during adapter installation.

%d: (Example) 0030

%r: Numerical value (1 to 3 digits)

Corrective action:

An HBA or a driver has a fault. If the error keeps recurring, contact your sales representative or a field engineer.

Severity:

Warning

Action:

(R/M/T/S)

13174

mptscsih:iocx Software error (Adapter not found!)

Meaning:

The specified adapter could not be found.

Corrective action:

An API and driver are not compatible. Check the API and driver version numbers.

Severity:

Warning

Action:

(/ /T/S)

13175

mptscsih: Software error (Adapter not found!)

Meaning:

The specified adapter could not be found.

Corrective action:

A driver has a fault. If the error keeps recurring, contact your sales representative or a field engineer.

Severity:

Warning

Action:

(/ /T/S)

13176

mptscsih:iocx Adapter error (HardReset FAILED!!) vendor-id=1000 device-id=%d revision=%r

Meaning:

The hard reset of the adapter failed.

%d: (Example) 0030

%r: Numerical value (1 to 3 digits)

Corrective action:

The HBA must be replaced. If the error keeps recurring, contact your sales representative or a field engineer.

Severity:

Warning

Action:

(R/M/T/S)

13177

mptscsih:iocx Adapter error (reset failed) vendor-id=1000 device-id=%d revision=%r

Meaning:

The adapter reset failed.

%d: (Example) 0030

%r: Numerical value (1 to 3 digits)

Corrective action:

The HBA must be replaced. If the error keeps recurring, contact your sales representative or a field engineer.

Severity:

Warning

Action:

(R/M/T/S)

13179

mptscsih:iocx Software error (pciras_readl(); recovered pci parity error with retry)

Meaning:

recovered pci parity error with retry when read PCI

Corrective action:

No action is necessary when this event is occurred only once.

Otherwise, contact your sales representative or a field engineer.

Severity:

Warning

Action:

(R/M/T/S)

13180

mptscsih:iocx Software error (pciras_writel(); recovered pci parity error with retry)

Meaning:

recovered pci parity error with retry when write PCI

Corrective action:

No action is necessary when this event is occurred only once.

Otherwise, contact your sales representative or a field engineer.

Severity:

Warning

Action:

(R/M/T/S)

13181

mptscsih:iocx Adapter error (mpt_fault_reset_work: HardReset) vendor-id=1000 device-id=%d revision=%r

Meaning:

The result of resetting the adapter is output.

%d: (Example) 0030

%r: Numerical value (1 to 3 digits)

Corrective action:

The HBA must be replaced. If the error keeps recurring, contact your sales representative or a field engineer.

Severity:

Warning

Action:

(R/M/T/S)

13182

mptscsih:iocx Adapter error (IOC is in FAULT state after reset) vendor-id=1000 device-id=%d revision=%r

Meaning:

After an adapter reset, the adapter remains in the fault state.

%d: (Example) 0030

%r: Numerical value (1 to 3 digits)

Corrective action:

The HBA must be replaced. If the error keeps recurring, contact your sales representative or a field engineer.

Severity:

Warning

Action:

(R/M/T/S)

13183

mptscsih:iocx Adapter error (pci_enable_device: failed) vendor-id=1000 device-id=%d revision=%r

Meaning:

pci_enable_device (PCI device initialization) failed.

%d: (Example) 0030

%r: Numerical value (1 to 3 digits)

Corrective action:

The HBA must be replaced. If the error keeps recurring, contact your sales representative or a field engineer.

Severity:

Warning

Action:

(R/M/T/S)

13184

mptscsih:iocx Adapter error (firmware upload failure!) vendor-id=1000 device-id=%d revision=%r

Meaning:

The adapter firmware upload failed.

%d: (Example) 0030

%r: Numerical value (1 to 3 digits)

Corrective action:

The HBA must be replaced. If the error keeps recurring, contact your sales representative or a field engineer.

Severity:

Warning

Action:

(R/M/T/S)

13185

mptscsih:iocx Adapter error (firmware downloadboot failure) vendor-id=1000 device-id=%d revision=%r

Meaning:

The firmware downloadboot operation failed.

%d: (Example) 0030

%r: Numerical value (1 to 3 digits)

Corrective action:

The HBA must be replaced. If the error keeps recurring, contact your sales representative or a field engineer.

Severity:

Warning

Action:

(R/M/T/S)

13186

mptscsih:iocx Adapter error (host page buffers free failed) vendor-id=1000 device-id=%d revision=%r

Meaning:

Releasing the host page buffer failed.

%d: (Example) 0030

%r: Numerical value (1 to 3 digits)

Corrective action:

The HBA must be replaced. If the error keeps recurring, contact your sales representative or a field engineer.

Severity:

Warning

Action:

(R/M/T/S)

13187

mptscsih:iocx Adapter error (Firmware Reload FAILED) vendor-id=1000 device-id=%d revision=%r

Meaning:

The pointer value of the request frame is null or outside its range.

%d: (Example) 0030

%r: Numerical value (1 to 8 digits)

Corrective action:

The HBA must be replaced. If the error keeps recurring, contact your sales representative or a field engineer.

Severity:

Warning

Action:

(R/M/T/S)

13188

mptscsih:iocx Adapter error (pci_enable_device_mem() failed) vendor-id=1000 device-id=%d revision=%r

Meaning:

pci_enable_device_mem (PCI device initialization) failed.

%d: (Example) 0030

%r: Numerical value (1 to 3 digits)

Corrective action:

The HBA must be replaced. If the error keeps recurring, contact your sales representative or a field engineer.

Severity:

Warning

Action:

(R/M/T/S)

13189

mptscsih:iocx Software error (failed setting 35 bit addressing for Request/Reply/Chain and Sense Buffers)

Meaning:

Buffer allocation to the adapter failed.

Corrective action:

A driver or kernel has a fault. Contact your sales representative or a field engineer.

Severity:

Warning

Action:

(/ /T/S)

13190

mptscsih:iocx Adapter error (adapter_reset retry exhausted; stop reset operation) vendorid=1000 device-id=%d revision=%r

Meaning:

The adapter reset count exceeded the upper limit. Stop the reset process.

Corrective action:

Replace the HBA. If the error keeps recurring, contact your sales representative or a field engineer.

Severity:

Warning

Action:

(R/M/T/S)

13191

mptscsih:iocx Adapter error (adapter_reset failed) vendor-id=1000 device-id=%d revision=%r

Meaning:

The adapter reset failed.

Corrective action:

Replace the HBA. If the error keeps recurring, contact your sales representative or a field engineer.

Severity:

Warning

Action:

(R/M/T/S)

13192

mptscsih:iocx Adapter error (IOC msg unit reset failed to put ioc in ready state) vendor-id=1000 device-id=%d revision=%r

Meaning:

The reset of the IOC message unit for placing the IOC in the standby state failed.

Corrective action:

Replace the HBA. If the error keeps recurring, contact your sales representative or a field engineer.

Severity:

Warning

Action:

(R/M/T/S)

13193

mptscsih: Adapter error (Errata on LSI53C1030 occurred)

Meaning:

Errata No.28 of LSI53C1030 (chip) occurred during reading of the data.

Corrective action:

Reexecute read after converting the target block size of the target data into multiples of eight.

If the error keeps recurring, collect the data for investigation (dump or fjsnap), and contact your sales representative or a field engineer.

Severity:

Warning

Action:

(R/M/T/S)

13194

mptscsih:iocx Device error (target reset failed) vendor-id=1000 device-id=%d revision=%r

Meaning:

The target reset failed.

Corrective action:

Replace the target device. If the error keeps recurring, contact your sales representative or a field engineer.

Severity:

Warning

Action:

(R/M/T/S)

13195

mptscsih:iocx Adapter error (IOC Not operational) vendor-id=1000 device-id=%d revision=%r

Meaning:

The adapter is not in the operational state.

Corrective action:

Replace the HBA. If the error keeps recurring, contact your sales representative or a field engineer.

Severity:

Warning

Action:

(R/M/T/S)

13196

mptscsih:iocx Adapter error (Issuing HardReset) vendor-id=1000 device-id=%d revision=%r

Meaning:

The hardware will be reset.

Corrective action:

Replace the HBA. If the error keeps recurring, contact your sales representative or a field engineer.

Severity:

Warning

Action:

(R/M/T/S)

13197

mptscsih:iocx Software error (pci_request_selected_regions failed)

Meaning:

pci_request_selected_regions() (allocating memory during PCI device initialization) failed.

Corrective action:

Collect the data for investigation (dump or fjsnap). Contact your sales representative or a field engineer.

Severity:

Warning

Action:

(/ /T/S)

13198

mptscsih:iocx Adapter error (Not Ready) vendor-id=1000 device-id=%d revision=%r

Meaning:

The adapter does not become READY.

Corrective action:

The HBA must be replaced. If the error keeps recurring, contact your sales representative or a field engineer.

Severity:

Warning

Action:

(R/M/T/S)

13199

mptscsih:iocx Software error (the smp response space is missing)

Meaning:

The SMP response space cannot be found.

Corrective action:

Collect the data for investigation (dump or fjsnap). Contact your sales representative or a field engineer.

Severity:

Warning

Action:

(/ /T/S)

13200

mptscsih:iocx Software error (multiple segments)

Meaning:

There is a request entry or response entry divided into several segments.

Corrective action:

Collect the data for investigation (dump or fjsnap). Contact your sales representative or a field engineer.

Severity:

Warning

Action:

(/ /T/S)

13201

mptscsih:iocx Software error (smp timeout)

Meaning:

An SMP timeout occurred.

Corrective action:

Collect the data for investigation (dump or fjsnap). Contact your sales representative or a field engineer.

Severity:

Warning

Action:

(/ /T/S)

13202

mptscsih:iocx Software error (smp passthru reply failed to be returned)

Meaning:

The response frame is invalid.

Corrective action:

Collect the data for investigation (dump or fjsnap). Contact your sales representative or a field engineer.

Severity:

Warning

Action:

(/ /T/S)

13203

mptscsih:iocx Adapter error (IOC Not Active) vendor-id=1000 device-id=%d revision=%r

Meaning:

The adapter is not active

Corrective action:

The HBA must be replaced. If the error keeps recurring, contact your sales representative or a field engineer.

Severity:

Warning

Action:

(R/M/T/S)

13204

mptscsih: Software error (Memory allocation failure)

Meaning:

Memory allocation is failed.

Corrective action:

A driver or kernel has a fault. If the error keeps recurring, contact your sales representative or a field engineer.

Severity:

Warning

Action:

(/ /T/S)

7．2．8．SCSI common layer messages [Linux]

This section lists SCSI common layer messages.

14000

sd: Software error (Unknown command)

Meaning:

Software has a fault. A flag in the request structure is abnormal.

Corrective action:

The driver that issued a request to sd has a fault. Collect system information using fjsnap. Contact your sales representative or a field engineer.

Severity:

Warning

Action:

(/ /T/S)

14001

sd:%s Device error (Not ready) vendor=%v model=%m serial-no=%ser

Meaning:

A device failure occurred. It does not return to the normal state even after TEST_UNIT_READY was executed three times. Alternatively, UNIT_ATTENTION does not disappear.

%s:sd[a-z]* or %h:%c:%i:%l

%h: host number; %c: channel number; %i: id; %l: lun number

%v: Vendor (Example) FUJITSU

%m: Manufacture (Example) MAP3367NC

%ser: Serial-no (Example) 01234567

Corrective action:

If a single drive is used, replace the disk. If an ETERNUS machine is used, examine it.

Severity:

Warning

Action:

(R/M/T/S)

14002

sd:sd[a-z]* Device error (Not ready) vendor=%v model=%m serial-no=%ser

Meaning:

A device error occurred.

%v: Vendor (Example) FUJITSU

%m: Manufacture (Example) MAP3367NC

%ser: Serial-no (Example) 01234567

Corrective action:

If a single drive is used, replace the disk. If an ETERNUS machine is used, examine it.

Severity:

Warning

Action:

(R/M/T/S)

14003

sd:sd[a-z]* Device error (READ CAPACITY failed) vendor=%v model=%m serial-no=%ser

Meaning:

A device error occurred. An error occurred in READ CAPACITY.

%v: Vendor (Example) FUJITSU

%m: Manufacture (Example) MAP3367NC

%ser: Serial-no (Example) 01234567

Corrective action:

If a single drive is used, replace the disk. If an ETERNUS machine is used, examine it.

Severity:

Warning

Action:

(R/M/T/S)

14004

sd:sd[a-z]* Device error (READ CAPACITY failed) vendor=%v model=%m serial-no=%ser

Meaning:

An error was returned in response to the execution of READ CAPACITY(16).

%v: Vendor (Example) FUJITSU

%m: Manufacture (Example) MAP3367NC

%ser: Serial-no (Example) 01234567

Corrective action:

If a single drive is used, replace the disk. If an ETERNUS machine is used, examine it.

Severity:

Warning

Action:

(R/M/T/S)

14005

sd:sd[a-z]* Device error (DISK size too big) vendor=%v model=%m serial-no=%ser

Meaning:

A device error occurred. The disk size is too large. (It exceeds 2 TB.)

%v: Vendor (Example) FUJITSU

%m: Manufacture (Example) MAP3367NC

%ser: Serial-no (Example) 01234567

Corrective action:

If a single drive is used, replace the disk. If an ETERNUS machine is used, examine it.

Severity:

Warning

Action:

(R/M/T/S)

14006

sd: Device error (sector size 0 reported) vendor=%v model=%m serial-no=%ser

Meaning:

The disk did not report the sector size. (It reported 0.)

%v: Vendor (Example) FUJITSU

%m: Manufacture (Example) MAP3367NC

%ser: Serial-no (Example) 01234567

Corrective action:

If a single drive is used, replace the disk. If an ETERNUS machine is used, examine it.

Severity:

Warning

Action:

(R/M/T/S)

14007

sd:%s Device error (unsupported sector size) vendor=%v model=%m serial-no=%ser

Meaning:

A device error occurred. The disk reported a sector size other than 256, 512, 1024, 2048, or 4096. The disk cannot be used in Linux. FORMAT_UNIT must be executed again.

%s:sd[a-z]* or %h:%c:%i:%l

%h: host number; %c: channel number; %i: id; %l: lun number

%v: Vendor (Example) FUJITSU

%m: Manufacture (Example) MAP3367NC

%ser: Serial-no (Example) 01234567

Corrective action:

If a single drive is used, replace the disk. If an ETERNUS machine is used, examine it.

Severity:

Warning

Action:

(R/M/T/S)

14008

sd: Software error (Request allocation failure)

Meaning:

Memory is insufficient. The buffer cannot be allocated. "Start Unit/ read capacity" cannot be executed.

Corrective action:

The memory in the kernel is insufficient. Action must be taken, such as reviewing the system configuration or reducing the system load.

Severity:

Warning

Action:

(/ /T/S)

14009

sd: Software error (Memory allocation failure)

Meaning:

Memory is insufficient. Spin up and read capacity failed. "Start Unit/ read capacity" cannot be executed.

Corrective action:

The memory in the kernel is insufficient. Action must be taken, such as reviewing the system configuration or reducing the system load.

Severity:

Warning

Action:

(/ /T/S)

14010

sr:sr[0-9]* Device error (Recovered error) vendor=%v model=%m

Meaning:

The I/O was disconnected because SK=RECOVERED ERROR.

%v: (Example) FUJITSU

%m: (Example) MAP3367NC

Corrective action:

The sense key is "Recovered Error." First, perform cleaning. Then, replace the media. If there is still no recovery, replace the drive.

Severity:

Warning

Action:

(/ /T/S)

14012

sr: Software error (bad sector size)

Meaning:

A driver failure may have occurred. The sector size is other than 512, 1024, or 2048.

Corrective action:

Examine the sr driver. Collect fjsnap. Contact your sales representative or a field engineer.

Severity:

Warning

Action:

(/ /T/S)

14013

sr:sr[0-9]* Device error (unsupported sector size) vendor=%v model=%m

Meaning:

A device error occurred. The sector size is not supported by sr.

%v: (Example) FUJITSU

%m: (Example) MAP3367NC

Corrective action:

The current media cannot be used.

Severity:

Warning

Action:

(/ /T/S)

14014

sr: Software error (Request allocation failure)

Meaning:

Memory is insufficient. An attempt to issue Mode Sense (Page 0x2a) to examine the device capacity failed because of insufficient memory.

Corrective action:

Add memory, or reduce the system load.

Severity:

Warning

Action:

(/ /T/S)

14015

sr: Software error (out of memory)

Meaning:

Memory is insufficient. An attempt to issue Mode Sense (Page 0x2a) to examine the device capacity failed because of insufficient memory.

Corrective action:

Add memory, or reduce the system load.

Severity:

Warning

Action:

(/ /T/S)

14016

st:st[0-9]* Device error (Error with sense data) vendor=%v model=%m

Meaning:

An error with sense data occurred in the device.

%v: (Example) FUJITSU

%m: (Example) MAP3367NC

Corrective action:

Check the sense key of the original data to decide on the corrective action.

Medium Error: Perform cleaning. Replace the tape.

Illegal Request: Examine the software.

Data Protect: Check whether the media is write-protected.

Blank Check: A tape positioning error. Check operation.

Unit Attention: A reset occurred or the media was replaced. If there is a problem with the reset, examine the HBA, transmission path, and target.

Aborted Command: An HBA, transmission path, or target failure may have occurred.

Other than above: Replace the drive.

Severity:

Warning

Action:

(R/M/T/S)

14017

st:st[0-9]* Device error vendor=%v model=%m

Meaning:

A No Sense error occurred in the device. The return value from the HBA is displayed as is.

%v: (Example) FUJITSU

%m: (Example) MAP3367NC

Corrective action:

The faulty part is unknown. If normal operation cannot be restored even after cleaning and tape replacement, replace the drive.

Severity:

Warning

Action:

(R/M/T/S)

14018

st:st[0-9]* Device error (Stepping over filemark forward failed) vendor=%v model=%m

Meaning:

A tape fast forward or rewind error occurred on the device.

%v: (Example) FUJITSU

%m: (Example) MAP3367NC

Corrective action:

If normal operation cannot be restored even after cleaning and tape replacement, replace the drive.

Severity:

Warning

Action:

(R/M/T/S)

14019

st:st[0-9]* Device error (Error on flush) vendor=%v model=%m

Meaning:

A write error (EIO) occurred on the device.

%v: (Example) FUJITSU

%m: (Example) MAP3367NC

Corrective action:

See the message before this one, and take corrective action.

Severity:

Warning

Action:

(R/M/T/S)

14020

st:st[0-9]* Device error (Can't set default drive buffering mode) vendor=%v model=%m

Meaning:

A device error occurred. Changing the tape drive buffering mode (MODE_SELECT) failed.

%v: (Example) FUJITSU

%m: (Example) MAP3367NC

Corrective action:

Check whether the tape device supports the buffer value contained in the message. If supported, a hardware failure occurred. Replace the drive.

Severity:

Warning

Action:

(R/M/T/S)

14021

st:st[0-9]* Software error (Can't allocate one page tape buffer)

Meaning:

Memory is insufficient. Buffer expansion failed.

Corrective action:

Review the system design, or add memory.

Severity:

Warning

Action:

(/ /T/S)

14022

st:st[0-9]* Device error (Error on write filemark) vendor=%v model=%m

Meaning:

A device error occurred. The write file mark command failed.

%v: (Example) FUJITSU

%m: (Example) MAP3367NC

Corrective action:

If normal operation cannot be restored even after cleaning and tape replacement, replace the drive.

Severity:

Warning

Action:

(R/M/T/S)

14023

st:st[0-9]* Device error (Can't set default compression) vendor=%v model=%m

Meaning:

A device or setting error occurred. The compression density could not be set to the default.

%v: (Example) FUJITSU

%m: (Example) MAP3367NC

Corrective action:

If there is no problem with the settings of the backup software, replace the drive.

Severity:

Warning

Action:

(R/M/T/S)

14024

st:st[0-9]* Device or Software error (Overrun) vendor=%v model=%m

Meaning:

A device or application error occurred. An overrun occurred on a variable-length device.

%v: (Example) FUJITSU

%m: (Example) MAP3367NC

Corrective action:

If you were working on a DAT by using a command such as dd, confirm that the specified parameters are correct. If you are sure that

there is no mistake in the work, a hardware failure occurred. Replace the drive.

Severity:

Warning

Action:

(R/M/T/S)

14025

st:st[0-9]* Device or Software error (Incorrect block size) vendor=%v model=%m

Meaning:

A device or application error occurred. The block size or the size specified for read is invalid for a fixed-length device.

%v: (Example) FUJITSU

%m: (Example) MAP3367NC

Corrective action:

Check the block size for read. If there is no problem with the block size, replace the drive.

Severity:

Warning

Action:

(R/M/T/S)

14026

st:st[0-9]* Software error (Illegal block size)

Meaning:

An application error occurred. The block size that the application tried to set is outside the block size range permitted by the device.

Corrective action:

Specify a valid block size.

Severity:

Warning

Action:

(/ /T/S)

14027

st:st[0-9]* Device or Software error (Partitioning of tape failed) vendor=%v model=%m

Meaning:

A device or application error occurred. Partitioning of the tape device failed.

%v: (Example) FUJITSU

%m: (Example) MAP3367NC

Corrective action:

Check whether the drive supports partitioning. If the drive does not support it, modify the software settings. If the drive supports it, replace the drive.

Severity:

Warning

Action:

(R/M/T/S)

14028

st:st[0-9]* Software error (not root)

Meaning:

An operation error occurred. A user without root privileges tried to change a setting using MTSETDRVBUFFER.

Corrective action:

If needed, try again with the su command.

Severity:

Warning

Action:

(/ /T/S)

14029

si: Software error (Can't allocate new tape buffer)

Meaning:

Memory is insufficient. Kernel memory for buffering cannot be allocated during driver initialization. (The device is unidentifiable because this error occurred during initialization before a name had been determined.)

Corrective action:

Review the system design, or add memory.

Severity:

Warning

Action:

(/ /T/S)

14030

st: Software error (failed to enlarge buffer)

Meaning:

Memory is insufficient. Memory acquisition for the buffer failed during initialization or in the open process.

Corrective action:

Review the system design, or add memory.

Severity:

Warning

Action:

(/ /T/S)

14031

st: Software error (overflow)

Meaning:

A driver has a fault. It tried to copy a new write request to the buffer in the kernel, but an overflow occurred.

Corrective action:

Collect fjsnap. Contact your sales representative or a field engineer.

Severity:

Warning

Action:

(/ /T/S)

14032

st: Software error (overflow)

Meaning:

A driver has a fault. It tried to copy a write request to the buffer in the kernel, but an overflow occurred.

Corrective action:

Collect fjsnap. Contact your sales representative or a field engineer.

Severity:

Warning

Action:

(/ /T/S)

14033

st: Software error (overflow)

Meaning:

A driver has a fault. It was processing a read request and tried to copy the request from the buffer in the kernel, but a buffer state inconsistency occurred.

Corrective action:

Collect fjsnap. Contact your sales representative or a field engineer.

Severity:

Warning

Action:

(/ /T/S)

14034

st: Software error (overflow)

Meaning:

A driver has a fault. It tried to copy a read request to the buffer in the kernel, but a buffer state inconsistency occurred.

Corrective action:

Collect fjsnap. Contact your sales representative or a field engineer.

Severity:

Warning

Action:

(/ /T/S)

14035

st: Software error (overflow)

Meaning:

A driver has a fault. It was processing a write request and tried to move data from the buffer in the kernel, but a buffer state inconsistency occurred.

Corrective action:

Collect fjsnap. Contact your sales representative or a field engineer.

Severity:

Warning

Action:

(/ /T/S)

14036

st: Software error (Device not attached)

Meaning:

Memory is insufficient. A device was detected, but it cannot be controlled because a buffer cannot be allocated to the kernel.

Corrective action:

The memory in the kernel is insufficient. Add memory, or reduce the load.

Severity:

Warning

Action:

(/ /T/S)

14037

st: Software error (Device not attached)

Meaning:

Memory is insufficient. A device was detected, but it cannot be controlled because a control table cannot be allocated.

Corrective action:

The memory in the kernel is insufficient. Add memory, or reduce the load.

Severity:

Warning

Action:

(/ /T/S)

14038

st: Software error (Can't extend device array)

Meaning:

Memory is insufficient. A control table for a new device could not be extended.

Corrective action:

The memory in the kernel is insufficient. Add memory, or reduce the load.

Severity:

Warning

Action:

(/ /T/S)

14039

st: Software error (Can't allocate device descriptor)

Meaning:

Memory is insufficient. A control table could not be allocated.

Corrective action:

The memory in the kernel is insufficient. Add memory, or reduce the load.

Severity:

Warning

Action:

(/ /T/S)

14040

st:st[0-9]* Software error (Device not attached)

Meaning:

Memory is insufficient. Character device registration failed.

Corrective action:

The memory in the kernel is insufficient. Add memory, or reduce the load.

Severity:

Warning

Action:

(/ /T/S)

14041

st:st[0-9]* Software error (Can't add rewind mode)

Meaning:

Memory is insufficient. Character device registration failed.

Corrective action:

The memory in the kernel is insufficient. Add memory, or reduce the load.

Severity:

Warning

Action:

(/ /T/S)

14044

st: Software error (Unable to get major number for SCSI tapes)

Meaning:

A system error occurred. Registration of the major number of the driver failed.

Corrective action:

Uninstall the driver that is using the st major number, and perform a reboot.

Severity:

Warning

Action:

(/ /T/S)

14045

sg: Software error (NULL request)

Meaning:

A driver has a fault. An inconsistency occurred.

Corrective action:

Collect fjsnap. Contact your sales representative or a field engineer.

Severity:

Warning

Action:

(/ /T/S)

14046

sg: Software error (device array cannot be resized)

Meaning:

Memory is insufficient. A control table could not be allocated.

Corrective action:

Add memory, or reduce the load.

Severity:

Warning

Action:

(/ /T/S)

14047

scsi: Software error (Bad queue type)

Meaning:

A driver has a fault.

Corrective action:

Collect fjsnap. Contact your sales representative or a field engineer.

Severity:

Warning

Action:

(/ /T/S)

14048

scsi: Software error (SCSI subsystem Initialization failed)

Meaning:

A system error occurred. Initialization of the SCSI failed.

Corrective action:

Collect fjsnap. Contact your sales representative or a field engineer.

Severity:

Warning

Action:

(/ /T/S)

14049

scsi: Software error (Old type LLD Driver)

Meaning:

An old driver not compatible with the interface was used.

Corrective action:

Update the driver.

Severity:

Warning

Action:

(/ /T/S)

14050

scsi: Software error (Old type LLD Driver)

Meaning:

An old driver not compatible with the interface was used.

Corrective action:

Update the driver.

Severity:

Warning

Action:

(/ /T/S)

14051

scsi: Software error (Strange LLD Driver)

Meaning:

A driver not compatible with the interface was used.

Corrective action:

Update the driver.

Severity:

Warning

Action:

(/ /T/S)

14052

scsi: Software error (SCSI internal ioctl failed)

Meaning:

The memory in the kernel is insufficient.

Corrective action:

Add memory, or reduce the load.

Severity:

Warning

Action:

(/ /T/S)

14053

scsi: Software error (SCSI device (ioctl) reports ILLEGAL REQUEST)

Meaning:

An ioctl error occurred.

Corrective action:

Examine the application that issued ioctl.

Severity:

Warning

Action:

(/ /T/S)

14054

scsi:host n id n lun n Device error (ioctl error) vendor=%v model=%m serial-no=%ser

Meaning:

An ioctl error occurred.

%v: (Example) FUJITSU

%m: (Example) MAP3367NC

%ser: (Example) 01234567

Corrective action:

Identify the type of the target unit from its host, id, and lun. Then, check the sense key (extended sense) in the original message to determine the corrective action.

1 (Recovered Error): If it is a removable device, perform cleaning.

2 (Not Ready): If it is non-removable, replace the device.

3 (Medium Error): If it is a disk, replace the device. If it has removable media, perform cleaning and replace the media.

4 (Hard Error): Replace the device.

5 (Illegal Request): Examine the software.

6 (Unit Attention): This is notification information from various devices. (e.g., reset status, RAID degradation if applicable)

7 (Data Protect): Check the Write Protect status.

8 (Blank Check): Check tape and other operations.

b (Aborted Command): Investigate problems in the SCSI bus and FC transmission paths.

If the problem persists, contact your sales representative or a field engineer.

Severity:

Warning

Action:

(R/M/T/S)

14055

scsi: Software error (cannot allocate scsi_result)

Meaning:

The memory in the kernel is insufficient.

Corrective action:

Add memory, or reduce the load.

Severity:

Warning

Action:

(/ /T/S)

14056

scsi:host n channel n id n lun n Device error (offlined) vendor=%v model=%m serial-no=%ser

Meaning:

A device error occurred. A SCSI device is offline.

%v: (Example) FUJITSU

%m: (Example) MAP3367NC

%ser: (Example) 01234567

Corrective action:

Replace the device. For the cause, see the error messages output before this one.

Severity:

Warning

Action:

(R/M/T/S)

14057

scsi:scsi%h (%c,%i,%l) Software error (reservation conflict)

Meaning:

Software has a fault.

%h: host number; %c: channel number; %i: id; %l: lun number

Corrective action:

There is a problem with the operation method or software.

Operation method: Confirm that operation is not performed in a manner that causes a resource conflict.

Software: Confirm which software executed RESERVE. Ask the developer to perform an investigation and correct the problem.

Severity:

Warning

Action:

(/ /T/S)

14058

scsi: Software error (request allocate failed; prevent media removal cmd not sent)

Meaning:

The memory in the kernel is insufficient.

Corrective action:

Add memory, or reduce the load.

Severity:

Warning

Action:

(/ /T/S)

14059

scsi:sxx Device error (Not ready) vendor=%v model=%m serial-no=%ser

Meaning:

A device error occurred.

%v: (Example) FUJITSU

%m: (Example) MAP3367NC

%ser: (Example) 01234567

Corrective action:

Check operation. If there is no problem in operations, replace the drive.

Severity:

Warning

Action:

(R/M/T/S)

14060

scsi:sxx Device error (Medium error or Volume overflow) vendor=%v model=%m serial-no=%ser

Meaning:

A media error or volume overflow occurred.

sxx is either sd[a-z]* or st[0-9]*.

%v: (Example) FUJITSU

%m: (Example) MAP3367NC

%ser: (Example) 01234567

Corrective action:

Check operation. If there is no problem in operations, take the following corrective action.

- Tape device: Clean the device. If the problem persists, replace the media.
- Disk device: Replace the drive.

Severity:

Warning

Action:

(R/M/T/S)

14061

scsi:<n n n n> Device error (SCSI command retry out) vendor=%v model=%m serial-no=%ser

Meaning:

A SCSI command terminated abnormally (retry out).

<nnnn>: Displays the host channel id lun (<hcil>) number. (Example) <1 0 2 0>

%v: (Example) FUJITSU

%m: (Example) MAP3367NC

%ser: (Example) 01234567

Corrective action:

Identify the type of the target unit. Then, check the sense key (extended sense) in the original message to determine the corrective action.

1 (Recovered Error): If it is a removable device, perform cleaning.

2 (Not Ready): If it is non-removable, replace the device.

3 (Medium Error): If it is a disk, replace the device. If it has removable media, perform cleaning and replace the media.

4 (Hard Error): Replace the device.

5 (Illegal Request): Examine the software.

6 (Unit Attention): This is notification information from various devices. (e.g., reset status, degradation)

7 (Data Protect): Check the Write Protect status.

8 (Blank Check): Check tape and other operations.

b (Aborted Command): Investigate problems in the SCSI bus and Fibre Channel transmission paths.

Severity:

Warning

Action:

(R/M/T/S)

14062

scsi: Software error (Incorrect number of segments)

Meaning:

Software has a fault.

Corrective action:

Collect fjsnap. Contact your sales representative or a field engineer.

Severity:

Warning

Action:

(/ /T/S)

14063

scsi: Software error (impossible request)

Meaning:

Software has a fault.

Corrective action:

Collect fjsnap. Contact your sales representative or a field engineer.

Severity:

Warning

Action:

(/ /T/S)

14064

scsi: Software error (can't init sg slab)

Meaning:

Memory is insufficient.

Corrective action:

Add memory, or reduce the load.

Severity:

Warning

Action:

(/ /T/S)

14065

scsi: Software error (can't init sg mempool)

Meaning:

Memory is insufficient.

Corrective action:

Add memory, or reduce the load.

Severity:

Warning

Action:

(/ /T/S)

14066

scsi: Software error (Allocation failure)

Meaning:

Memory is insufficient.

Corrective action:

Add memory, or reduce the load.

Severity:

Warning

Action:

(/ /T/S)

14067

scsi: Software error (Device configuration error)

Meaning:

An error occurred in the device configuration. Although settings permit response to an X-byte INQUIRY, an INQUIRY command of X bytes failed.

Corrective action:

The information set using echo "vendor:model:flag" > /proc/scsi/device_info may be incompatible with the hardware. Confirm the settings.

If the settings are correct, a SCSI device failure may have occurred.

Severity:

Warning

Action:

(R/M/T/S)

14068

scsi: Device error (inquiry failed)

Meaning:

A device error occurred.

Corrective action:

Replace or remove the device.

Severity:

Warning

Action:

(R/M/T/S)

14069

scsi: Software error (Allocation failure)

Meaning:

A device scan terminated before completion because of insufficient memory. Some devices may have not been recognized.

Corrective action:

Add memory, or reduce the load.

Severity:

Warning

Action:

(/ /T/S)

14070

scsi:host n channel n id n Device error (Device configuration error) vendor=%v model=%m serial-no=%ser

Meaning:

The number of LUNs reported by the device exceeds the supported limit of the operating system.

%v: (Example) FUJITSU

%m: (Example) MAP3367NC

%ser: (Example) 01234567

Corrective action:

Set a larger value in max_scsi_report_luns, or reduce the number of LUNs on the device side.

Severity:

Warning

Action:

(R/M/T/S)

14071

scsi:host n channel n id n Device error (Device configuration error) vendor=%v model=%m serial-no=%ser

Meaning:

An error occurred in the device configuration. The number of LUNs reported by the device exceeds the supported limit of the operating system.

%v: (Example) FUJITSU

%m: (Example) MAP3367NC

%ser: (Example) 01234567

Corrective action:

Reduce the number of LUNs on the device side.

Severity:

Warning

Action:

(R/M/T/S)

14072

scsi:host n channel n id n Device error (Device configuration error) vendor=%v model=%m serial-no=%ser

Meaning:

An error occurred in the device configuration.

%v: (Example) FUJITSU

%m: (Example) MAP3367NC

%ser: (Example) 01234567

Corrective action:

If you need to use all LUNs, the ETERNUS configuration must be changed. If you accept the fact that some of them will not be available, no action is necessary.

Severity:

Warning

Action:

(R/M/T/S)

14073

scsi:host n channel n id n lun n Device error (Unexpected response) vendor=%v model=%m serial-no=%ser

Meaning:

A SCSI device scan was interrupted. The interrupt reason is displayed individually before this message.

%v: (Example) FUJITSU

%m: (Example) MAP3367NC

%ser: (Example) 01234567

Corrective action:

Some devices were not recognized. Eliminate the cause. Then, perform a reboot.

Severity:

Warning

Action:

(R/M/T/S)

14074

scsi: Software error (Allocation failure)

Meaning:

Memory is insufficient.

Corrective action:

See the message displayed before this one, and take corrective action.

Severity:

Warning

Action:

(/ /T/S)

14075

scsi: Software error (no memory)

Meaning:

Memory is insufficient. Addition of device information failed.

Corrective action:

Add memory, or reduce the load.

Severity:

Warning

Action:

(/ /T/S)

14076

scsi: Software error (proc_mkdir failed)

Meaning:

Software has a fault. proc_mkdir() failed.

Corrective action:

Collect fjsnap. Contact your sales representative or a field engineer.

Severity:

Warning

Action:

(/ /T/S)

14077

scsi: Software error (Failed to register)

Meaning:

Software has a fault.

Corrective action:

Collect fjsnap. Contact your sales representative or a field engineer.

Severity:

Warning

Action:

(/ /T/S)

14078

scsi: Software error (rejecting I/O to dead device)

Meaning:

The device does not exist.

Corrective action:

Check operation.

Severity:

Warning

Action:

(/ /T/S)

14079

scsi: Software error (rejecting I/O to device being removed)

Meaning:

The device does not exist.

Corrective action:

Check operation.

Severity:

Warning

Action:

(/ /T/S)

14080

scsi: Software error (rejecting I/O to offline device)

Meaning:

The device cannot go offline.

Corrective action:

Check operation.

Severity:

Warning

Action:

(/ /T/S)

14083

st:st[0-9]* Software error (Can't set default block size)

Meaning:

An application error occurred. (Insufficient definition)

The default mode (number 0) was used because there is no parameter for the specified mode.

Corrective action:

The settings for the driver are inadequate for use of the application. Confirm the settings.

Severity:

Warning

Action:

(/ /T/S)

14084

sd: Software error (Bad block number requested)

Meaning:

Usage is incorrect. The sector size for the device is 1024, 2048, or 4096, but the start position or size of the request is not a multiple of the size.

Corrective action:

Fix the bug in the program in use.

Severity:

Warning

Action:

(/ /T/S)

14085

sd:sd[a-z]* Device error (test WP failed) vendor=%v model=%m serial-no=%ser

Meaning:

Whether Write Protect is set is unknown because Mode sense (Page 3F) failed. The process proceeds assuming that Write Protect is not set.

%v: (Example) FUJITSU

%m: (Example) MAP3367NC

%ser: (Example) 01234567

Corrective action:

If a single drive is used, replace the disk. If an ETERNUS machine is used, examine it.

Severity:

Warning

Action:

(R/M/T/S)

14086

sd:sd[a-z]* Device error (cache data unavailable) vendor=%v model=%m serial-no=%ser

Meaning:

"SK/ASC/ASCQ=5/0x24/0x00 (Illegal Request: Invalid field in CDB)" was returned as a result from Mode Sense (Page 8). The cache status is unknown because the Mode sense (Page 8) process failed.

%v: (Example) FUJITSU

%m: (Example) MAP3367NC

%ser: (Example) 01234567

Corrective action:

If a single drive is used, replace the disk. If an ETERNUS machine is used, examine it.

Severity:

Warning

Action:

(R/M/T/S)

14087

sd:%s Device error (asking for cache data failed) vendor=%v model=%m serial-no=%ser

Meaning:

An error other than "SK/ASC/ASCQ=5/0x24/0x00 (Illegal Request: Invalid field in CDB)" was returned as a result from Mode Sense (Page 8). The cache status is unknown because the Mode sense (Page 8) process failed.

%s:sd[a-z]* or %h:%c:%i:%l

%h: host number; %c: channel number; %i: id; %l: lun number

%v: (Example) FUJITSU

%m: (Example) MAP3367NC

%ser: (Example) 01234567

Corrective action:

If a single drive is used, replace the disk. If an ETERNUS machine is used, examine it.

Severity:

Warning

Action:

(R/M/T/S)

14088

st:st[0-9]* Software error (Write not multiple of tape block size)

Meaning:

An application error occurred. For a fixed-length tape device, the write size is not a multiple of the block size of the tape.

Corrective action:

Specify a valid block size for write.

Severity:

Warning

Action:

(/ /T/S)

14089

st: Software error (Too many tape devices)

Meaning:

A configuration error occurred. The maximum supported number of tape devices is ST_MAX_TAPES (128).

Corrective action:

Review the system configuration.

Severity:

Warning

Action:

(/ /T/S)

14090

sg: Software error (Unable to attach sg device)

Meaning:

A system configuration error occurred. There is no available minor number. The maximum is SG_MAX_DEVS (32768) in total.

Corrective action:

Check the upper limit in the specifications. Review the system configuration.

Severity:

Warning

Action:

(/ /T/S)

14091

sg: Software error (cannot be allocated)

Meaning:

Memory is insufficient. A control table could not be allocated.

Corrective action:

Collect fjsnap. Contact your sales representative or a field engineer.

Severity:

Warning

Action:

(/ /T/S)

14093

sg:sgn Software error (unable to make symlink)

Meaning:

Memory is insufficient, or an internal operating system error occurred. Creation of a symbolic link in sysfs failed.

Corrective action:

Add memory, or reduce the load.

Severity:

Warning

Action:

(/ /T/S)

14094

sr: Software error (Unable to allocate SCSI request)

Meaning:

ioctl to a CD-ROM failed because of insufficient memory.

Corrective action:

Add memory, or reduce the load. If the problem persists, collect fjsnap, and contact your sales representative or a field engineer.

Severity:

Warning

Action:

(/ /T/S)

14095

sr:sr[0-9]* Software error (unknown vendor code)

Meaning:

A driver has a fault. A vendor code that should be initialized has not been initialized.

Corrective action:

Collect fjsnap. Contact your sales representative or a field engineer.

Severity:

Warning

Action:

(/ /T/S)

14096

st: Software error (Unable create sysfs class)

Meaning:

Memory is insufficient, or an internal operating system error occurred. The class of a SCSI tape could not be created in sysfs.

Corrective action:

Collect fjsnap. Contact your sales representative or a field engineer.

Severity:

Warning

Action:

(/ /T/S)

14097

sg: Software error (kmalloc Sg_device failure)

Meaning:

Memory is insufficient. A control table could not be allocated.

Corrective action:

Add memory, or reduce the load. If the problem persists, collect fjsnap, and contact your sales representative or a field engineer.

Severity:

Warning

Action:

(/ /T/S)

14099

sg: Software error (alloc_disk failed)

Meaning:

Memory is insufficient. A control table could not be allocated.

Corrective action:

Add memory, or reduce the load. If the problem persists, collect fjsnap, and contact your sales representative or a field engineer.

Severity:

Warning

Action:

(/ /T/S)

14100

sg: Software error (cdev_alloc failed)

Meaning:

Memory is insufficient. A control table could not be allocated.

Corrective action:

Add memory, or reduce the load. If the problem persists, collect fjsnap, and contact your sales representative or a field engineer.

Severity:

Warning

Action:

(/ /T/S)

14101

sg: Software error (sg_alloc failed)

Meaning:

Memory is insufficient. A control table could not be allocated.

Corrective action:

Add memory, or reduce the load. If the problem persists, collect fjsnap, and contact your sales representative or a field engineer.

Severity:

Warning

Action:

(/ /T/S)

14102

sg: Software error (class_simple_device_add failed)

Meaning:

Memory is insufficient. A control table could not be allocated.

Corrective action:

Add memory, or reduce the load. If the problem persists, collect fjsnap, and contact your sales representative or a field engineer.

Severity:

Warning

Action:

(/ /T/S)

14103

scsi: Software error (Illegal state transition)

Meaning:

A software error occurred.

Corrective action:

Collect fjsnap. Contact your sales representative or a field engineer.

Severity:

Warning

Action:

(/ /T/S)

14104

scsi: Software error (Target device_add failed)

Meaning:

An error occurred while a device was being added to sysfs. Memory may be insufficient.

Corrective action:

Add memory, or reduce the load.

Severity:

Warning

Action:

(/ /T/S)

14105

scsi: Software error (Target transport add failed)

Meaning:

An error occurred while a transport class (e.g., SPI, FC) was being added to sysfs. Memory may be insufficient.

Corrective action:

Add memory, or reduce the load.

Severity:

Warning

Action:

(/ /T/S)

14106

scsi: Software error (Target transport attr add failed)

Meaning:

An error occurred while the attribute of a transport class (e.g., SPI, FC) was being added. Memory may be insufficient.

Corrective action:

Add memory, or reduce the load.

Severity:

Warning

Action:

(/ /T/S)

14107

scsi: Software error (allocation failure)

Meaning:

A memory shortage occurred while the node of a target was being added to sysfs.

Corrective action:

Add memory, or reduce the load.

Severity:

Warning

Action:

(/ /T/S)

14108

scsi: Software error (ordered flushes don't support queueing)

Meaning:

The use of ordered flush was avoided because the HBA supports queuing.

Corrective action:

Examine the software. Confirm the specifications of the HBA driver. Also confirm that its implementation is correct.

Severity:

Warning

Action:

(/ /T/S)

14110

scsi:scsi%d (%d,%d,%d) Device error (probe failed) vendor=%v model=%m serial-no=%ser

Meaning:

The recognition of a device was interrupted because the device responded with busy to an I/O request to recognize the device, even after retries.

%v: (Example) FUJITSU

%m: (Example) MAP3367NC

%ser: (Example) 01234567

Corrective action:

If the LUN where the error occurred is shared by multiple servers using FC-Switch or other means, review the zoning setting to reduce the load on each server. If a single drive is used, replace the drive.

Severity:

Warning

Action:

(R/M/T/S)

14111

scsi: Software error (barrier error; disabling flush support)

Meaning:

Ordered flush is not performed after this because it would fail.

Corrective action:

See the error messages displayed before this one, and take corrective action.

Severity:

Warning

Action:

(/ /T/S)

14112

st: Software error (Can't allocate tape buffer)

Meaning:

Memory is insufficient. Buffer expansion failed.

Corrective action:

Review the system design, or add memory.

Severity:

Warning

Action:

(/ /T/S)

14113

st: Software error (class_simple_device_add failed)

Meaning:

Memory is insufficient. Control table allocation failed.

Corrective action:

Add memory, or reduce the load. If the problem persists, collect fjsnap, and contact your sales representative or a field engineer.

Severity:

Warning

Action:

(/ /T/S)

14114

st: Software error (Can't create sysfs link from SCSI device)

Meaning:

Memory is insufficient, or an internal operating system error occurred. Creation of a symbolic link in sysfs failed.

Corrective action:

Add memory, or reduce the load. If the problem persists, collect fjsnap, and contact your sales representative or a field engineer.

Severity:

Warning

Action:

(/ /T/S)

14115

sd: Software error (FUA write on READ/WRITE drive)

Meaning:

The request command is invalid. READ/WRITE(10) must be used.

Corrective action:

Collect fjsnap. Contact your sales representative or a field engineer.

Severity:

Warning

Action:

(/ /T/S)

14116

sd:%s Device error (too big for this kernel) vendor=%v model=%m serial-no=%ser

Meaning:

The size of a block exceeds the allowable limit supported by the kernel.

%s:sd[a-z]* or %h:%c:%i:%l

%h: host number; %c: channel number; %i: id; %l: lun number

%v: (Example) FUJITSU

%m: (Example) MAP3367NC

%ser: (Example) 01234567

Corrective action:

If a single drive is used, replace the disk. If an ETERNUS machine is used, examine it.

Severity:

Warning

Action:

(R/M/T/S)

14118

sd:sd[a-z]* Device error (got wrong page) vendor=%v model=%m serial-no=%ser

Meaning:

Reading of a mode page (cache control parameter) failed.

%v: (Example) FUJITSU

%m: (Example) MAP3367NC

%ser: (Example) 01234567

Corrective action:

If the device is isolated after this message, replace it. If it is not isolated, no action is necessary.

Severity:

Warning

Action:

(R/M/T/S)

14119

st:st[0-9]* Software error (class_device_create failed)

Meaning:

class_device_create failed.

Corrective action:

Collect fjsnap. Contact your sales representative or a field engineer.

Severity:

Warning

Action:

(/ /T/S)

14120

scsi:%h:%c:%i:%l Software error (Device not ready)

Meaning:

An I/O request sent to a SCSI device that is in the static state (not yet ready for use) was rejected.

%h: host number; %c: channel number; %i: id; %l: lun number

Corrective action:

Check operation.

Severity:

Warning

Action:

(/ /T/S)

14123

scsi:%h:%c:%i:%l Software error (rejecting I/O to offline device)

Meaning:

An I/O request sent to an offline device was rejected.

%h: host number; %c: channel number; %i: id; %l: lun number

Corrective action:

Check operation.

Severity:

Warning

Action:

(/ /T/S)

14124

scsi:%h:%c:%i:%l Software error (rejecting I/O to dead device)

Meaning:

An I/O request sent to a device that could not be found was rejected.

%h: host number; %c: channel number; %i: id; %l: lun number

Corrective action:

Check operation.

Severity:

Warning

Action:

(/ /T/S)

14125

scsi:%h:%c:%i:%l Software error (rejecting I/O to device being removed)

Meaning:

An I/O request sent to a removed device was rejected.

%h: host number; %c: channel number; %i: id; %l: lun number

Corrective action:

Check operation.

Severity:

Warning

Action:

(/ /T/S)

14126

scsi: Software error (impossible request)

Meaning:

A software or hardware failure occurred.

Corrective action:

Collect the data for investigation (dump). Contact your sales representative or a field engineer.

Severity:

Warning

Action:

(/ /T/S)

14127

scsi: Software error (timing out command. waited)

Meaning:

The timing out command is in the standby state.

Corrective action:

Collect fjsnap. Contact your sales representative or a field engineer.

Severity:

Warning

Action:

(/ /T/S)

14128

scsi: Software error (can't init scsi io context cache)

Meaning:

Caching of an I/O request failed. Memory may be insufficient.

Corrective action:

Add memory, or reduce the load.

Severity:

Warning

Action:

(/ /T/S)

14129

scsi: Software error (allocation failure)

Meaning:

Allocation of the target area in scsi_alloc_target() failed. Memory may be insufficient.

Corrective action:

Add memory, or reduce the load.

Severity:

Warning

Action:

(/ /T/S)

14130

scsi: Software error (target allocation failed)

Meaning:

Allocation of the target area in scsi_alloc_target() failed. Memory may be insufficient.

Corrective action:

Add memory, or reduce the load.

Severity:

Warning

Action:

(/ /T/S)

14131

scsi:%h:%c:%i:%l Device error (Can't create sysfs link from SCSI device) vendor=%v model=%m serial-no=%ser

Meaning:

The configuration of a device is incorrect.

%h: host number; %c: channel number; %i: id; %l: lun number

%v: (Example) FUJITSU

%m: (Example) MAP3367NC

%ser: (Example) 01234567

Corrective action:

Specify the configuration of the device correctly, and try again.

Severity:

Warning

Action:

(R/M/T/S)

14132

sr:%h:%c:%i:%l Software error (bad sector size)

Meaning:

A sector size error was detected.

%h: host number; %c: channel number; %i: id; %l: lun number

Corrective action:

Examine the sr driver. Collect fjsnap. Contact your sales representative or a field engineer.

Severity:

Warning

Action:

(/ /T/S)

14133

sg:%h:%c:%i:%l Software error (Unable to attach sg device)

Meaning:

There is no available minor number because the system configuration is incorrect. The number is up to 32768.

%h: host number; %c: channel number; %i: id; %l: lun number

Corrective action:

Check the upper limit in the specifications. Review the system configuration.

Severity:

Warning

Action:

(/ /T/S)

14134

scsi:%h:%c:%i:%l Device error (offlined) vendor=%v model=%m serial-no=%ser

Meaning:

A SCSI device went offline.

%h: host number; %c: channel number; %i: id; %l: lun number

%v: (Example) FUJITSU

%m: (Example) MAP3367NC

%ser: (Example) 01234567

Corrective action:

Replace the device. For the cause, see the message displayed before this one.

Severity:

Warning

Action:

(/ /T/S)

14135

scsi:%h:%c:%i:%l Software error (reservation conflict)

Meaning:

A software error occurred.

%h: host number; %c: channel number; %i: id; %l: lun number

Corrective action:

There is a problem with the operation method or the software that uses RESERVE/RELEASE. If the problem persists, contact your sales representative or a field engineer.

Severity:

Warning

Action:

(/ /T/S)

14136

scsi:%s Software error (request failed)

Meaning:

A software failure occurred.

%s: "sd[a-z]*", st[0-9]*", or ""

Corrective action:

The driver that issued a request to sd has a fault. Collect fjsnap. Contact your sales representative or a field engineer.

Severity:

Warning

Action:

(/ /T/S)

14137

scsi:%h:%c:%i:%l Device error (ioctl_internal_command) vendor=%v model=%m serial-no=%ser

Meaning:

A device or driver failure occurred.

%h: host number; %c: channel number; %i: id; %l: lun number

%v: (Example) FUJITSU

%m: (Example) MAP3367NC

%ser: (Example) 01234567

Corrective action:

Identify the type of the target device from its host, id, and lun. Then, check the sense key (extended sense) to determine the corrective action.

1 (Recovered Error): If it is a removable device, perform cleaning.

2 (Not Ready): If it is non-removable, replace the device.

3 (Medium Error): If it is a disk, replace the device. If it has removable media, perform cleaning and replace the media.

4 (Hard Error): Replace the device.

5 (Illegal Request): Examine the software.

6 (Unit Attention): This is notification information from various devices. (e.g., reset status, RAID degradation if applicable)

7 (Data Protect): Check the Write Protect status.

8 (Blank Check): Check tape and other operations.

b (Aborted Command): Investigate problems in the SCSI bus and FC transmission paths.

Severity:

Error

Action:

(R/M/T/S)

14138

scsi:%h:%c:%i:%l Device error (Volume overflow. CDB) vendor=%v model=%m serial-no=%ser

Meaning:

Data that could not be written to a device because it was full is left in a buffer. An I/O request sent to the SCSI device was rejected.

%h: host number; %c: channel number; %i: id; %l: lun number

%v: (Example) FUJITSU

%m: (Example) MAP3367NC

%ser: (Example) 01234567

Corrective action:

Identify the type of the target device from its host, id, and lun. Then, check the sense key (extended sense) to determine the corrective action.

1 (Recovered Error): If it is a removable device, perform cleaning.

2 (Not Ready): If it is non-removable, replace the device.

3 (Medium Error): If it is a disk, replace the device. If it has removable media, perform cleaning and replace the media.

4 (Hard Error): Replace the device.

5 (Illegal Request): Examine the software.

6 (Unit Attention): This is notification information from various devices. (e.g., reset status, RAID degradation if applicable)

7 (Data Protect): Check the Write Protect status.

8 (Blank Check): Check tape and other operations.

b (Aborted Command): Investigate problems in the SCSI bus and FC transmission paths.

Severity:

Warning

Action:

(R/M/T/S)

14139

scsi:%h:%c:%i:%l Device error (I/O error) vendor=%v model=%m serial-no=%ser

Meaning:

An I/O error occurred.

%h: host number; %c: channel number; %i: id; %l: lun number

%v: (Example) FUJITSU

%m: (Example) MAP3367NC

%ser: (Example) 01234567

Corrective action:

If the return code is "0x00010000," a no-response error occurred on the disk. Replace the disk.

If another return code is returned, identify the type of the target device from its host, id, and lun. Then, check the sense key (extended sense) to determine the corrective action.

1 (Recovered Error): If it is a removable device, perform cleaning.

2 (Not Ready): If it is non-removable, replace the device.

3 (Medium Error): If it is a disk, replace the device. If it has removable media, perform cleaning and replace the media.

4 (Hard Error): Replace the device.

5 (Illegal Request): Examine the software.

6 (Unit Attention): This is notification information from various devices. (e.g., reset status, RAID degradation if applicable)

7 (Data Protect): Check the Write Protect status.

8 (Blank Check): Check tape and other operations.

b (Aborted Command): Investigate problems in the SCSI bus and FC transmission paths.

Severity:

Warning

Action:

(R/M/T/S)

14140

sd:sd[a-z]* Device error (Use a kernel compiled with support for large block devices) vendor=%v model=%m serial-no=%ser

Meaning:

A device error occurred. The disk size is too large.

%v: (Example) FUJITSU

%m: (Example) MAP3367NC

%ser: (Example) 01234567

Corrective action:

If a single drive is used, replace the disk. If an ETERNUS machine is used, examine it. Alternatively, use a kernel that supports the disk capacity.

Severity:

Warning

Action:

(R/M/T/S)

14141

st:st[0-9]* Software error (Async command already active)

Meaning:

An asynchronous error was detected. A command that is being executed asynchronously already exists.

Corrective action:

Try again after a while. Alternatively, perform cleaning or replace the tape. If normal operation cannot be restored, replace the drive.

Severity:

Warning

Action:

(/ /T/S)

14142

scsi:%h:%c:%i:%l Software error (timing out command. waited)

Meaning:

A time-out was detected.

%h: host number; %c: channel number; %i: id; %l: lun number

Corrective action:

Collect fjsnap. Contact your sales representative or a field engineer.

Severity:

Warning

Action:

(/ /T/S)

14143

scsi: Software error (mapping failed)

Meaning:

Mapping failed.

Corrective action:

Collect fjsnap. Contact your sales representative or a field engineer.

Severity:

Warning

Action:

(/ /T/S)

14144

scsi:%h:%c:%i:%l Software error (target device_add failed)

Meaning:

Registration of a target failed.

%h: host number; %c: channel number; %i: id; %l: lun number

Corrective action:

Examine the software, or check the device (replace or remove it).

Severity:

Warning

Action:

(/ /T/S)

14145

scsi:%h:%c:%i:%l Software error (target allocation failed)

Meaning:

Memory acquisition failed.

%h: host number; %c: channel number; %i: id; %l: lun number

Corrective action:

Add memory, reduce the load, or review the system configuration.

Severity:

Warning

Action:

(/ /T/S)

14146

scsi:%h:%c:%i:%l Software error (Unexpected response from lun while scanning. scan aborted)

Meaning:

A scan on a SCSI device was interrupted because of some fault.

The interrupt reason is displayed before this message.

%h: host number; %c: channel number; %i: id; %l: lun number

Corrective action:

Some devices were not recognized. Eliminate the cause. Then, perform a reboot.

Severity:

Warning

Action:

(/ /T/S)

14147

scsi: Software error (fc_host_post_event: Dropped Event)

Meaning:

Event creation failed.

Corrective action:

Collect fjsnap. Contact your sales representative or a field engineer.

Severity:

Warning

Action:

(/ /T/S)

14148

scsi: Software error (fc_host_post_vendor_event: Dropped Event)

Meaning:

Event creation failed.

Corrective action:

Collect fjsnap. Contact your sales representative or a field engineer.

Severity:

Warning

Action:

(/ /T/S)

14149

scsi: Software error (attempted to queue work; when no workqueue created)

Meaning:

Queuing was attempted when no work queue was created.

Corrective action:

Collect fjsnap. Contact your sales representative or a field engineer.

Severity:

Warning

Action:

(/ /T/S)

14150

scsi: Software error (attempted to flush work; when no workqueue created)

Meaning:

Flushing was attempted when no work queue was created.

Corrective action:

Collect fjsnap. Contact your sales representative or a field engineer.

Severity:

Warning

Action:

(/ /T/S)

14151

scsi: Software error (fc_rport_create: allocation failure)

Meaning:

Memory acquisition failed.

Corrective action:

Add memory, or reduce the system load.

Severity:

Warning

Action:

(/ /T/S)

14152

scsi: Software error (FC Remote Port device_add failed)

Meaning:

Device addition failed.

Corrective action:

Add memory, or reduce the system load.

Severity:

Warning

Action:

(/ /T/S)

14153

scsi:%h:%c:%i:%l Software error (FC remote port time out: no longer a FCP target; removing starget)

Meaning:

An FC connection timed out. (The target will be removed from the SCSI layer because target recognition in the FC layer is no longer possible.)

%h: host number; %c: channel number; %i: id; %l: lun number

Corrective action:

Check the FC network connections.

Severity:

Warning

Action:

(/ /T/S)

14154

scsi:%h:%c:%i:%l Software error (FC remote port time out: leaving target alone)

Meaning:

An FC connection timed out. (The target will be left.)

%h: host number; %c: channel number; %i: id; %l: lun number

Corrective action:

Check the FC network connections.

Severity:

Warning

Action:

(/ /T/S)

14155

scsi:%h:%c:%i:%l Software error (FC remote port time out: removing target)

Meaning:

An FC connection timed out. (The target will be removed.)

%h: host number; %c: channel number; %i: id; %l: lun number

Corrective action:

Check the FC network connections.

Severity:

Warning

Action:

(/ /T/S)

14156

scsi:%h:%c:%i:%l Software error (FC remote port time out: removing target and saving binding)

Meaning:

An FC connection timed out. (The target will be removed. The binding will be saved.)

%h: host number; %c: channel number; %i: id; %l: lun number

Corrective action:

Check the FC network connections.

Severity:

Warning

Action:

(/ /T/S)

14157

scsi:%h:%c:%i:%l Software error (it's already part of another port)

Meaning:

The target port is already in use.

%h: host number; %c: channel number; %i: id; %l: lun number

Corrective action:

Confirm the port.

Severity:

Warning

Action:

(/ /T/S)

14158

scsi:%h:%c:%i:%l Software error (saving binding)

Meaning:

An FC connection timed out. The binding will be saved.

%h: host number; %c: channel number; %i: id; %l: lun number

Corrective action:

Check the FC network connections.

Severity:

Warning

Action:

(/ /T/S)

14159

scsi:%h:%c:%i:%l Software error (target resuming)

Meaning:

scsi timed out. (The target will be resumed.)

%h: host number; %c: channel number; %i: id; %l: lun number

Corrective action:

Check the SCSI device connections.

Severity:

Warning

Action:

(/ /T/S)

14160

scsi:%h:%c:%i:%l Software error (host resuming)

Meaning:

The host timed out. (The host will be resumed.)

%h: host number; %c: channel number; %i: id; %l: lun number

Corrective action:

Check the SCSI device connections.

Severity:

Warning

Action:

(/ /T/S)

14161

sd: Software error (No memory for request)

Meaning:

The memory in the kernel is insufficient.

Corrective action:

Review the system configuration. Reduce the system load.

Severity:

Warning

Action:

(/ /T/S)

14162

st:st[0-9]* Device error vendor=%v model=%m

Meaning:

A No Sense error occurred in the device. The return value from the HBA is displayed as is.

%v: (Example) FUJITSU

%m: (Example) MAP3367NC

Corrective action:

Check the sense key included in the message. Take corrective action as described below, according to the character string of the sense key.

- For "No Sense," "Recovered Error," or "Unit Attention":

  >> If the error occurred alone, no action is necessary. If the error has occurred repeatedly, collect the data for investigation (dump or fjsnap), and contact your sales representative or a field engineer.

- For "Medium Error":

  >> Replace the disk or tape.

- For "Blank Check":

  >> Check the read and write operations of the disk or tape. If there is no problem in operations, collect the data for investigation (dump or fjsnap), and contact your sales representative or a field engineer.

- Other

  >> Collect the data for investigation (dump or fjsnap). Contact your sales representative or a field engineer.

Severity:

Warning

Action:

(R/M/T/S)

14163

sd:%h:%c:%i:%l Software error (START_STOP FAILED)

Meaning:

Device stop failed.

%h: host number; %c: channel number; %i: id; %l: lun number

Corrective action:

The memory in the kernel is insufficient. Review the system configuration. Reduce the system load.

Severity:

Warning

Action:

(/ /T/S)

14164

sd: Software error (Cannot create port links or backlink)

Meaning:

Creation of a symbolic link failed.

Corrective action:

Add memory. Alternatively, check the SAS port.

Severity:

Warning

Action:

(/ /T/S)

14165

scsi:%s Device error vendor=%v model=%m

Meaning:

A No Sense error occurred in the device. The return value from the HBA is displayed as is.

%s: (Example) sda, st0, etc.

%v: (Example) FUJITSU

%m: (Example) MAP3367NC

Corrective action:

Check the sense key included in the message. Take corrective action as described below, according to the character string of the sense key.

- For "No Sense," "Recovered Error," or "Unit Attention":

>> If the error occurred alone, no action is necessary. If the error has occurred repeatedly, collect the data for investigation (dump or fjsnap), and contact your sales representative or a field engineer.

- For "Medium Error":

  >> Replace the disk or tape.

- For "Blank Check":

  >> Check the read and write operations of the disk or tape. If there is no problem in operations, collect the data for investigation (dump or fjsnap), and contact your sales representative or a field engineer.

- Other

  >> Collect the data for investigation (dump or fjsnap). Contact your sales representative or a field engineer.

Severity:

Warning

Action:

(R/M/T/S)

14166

scsi:%h:%c:%i:%l Software error (event eaten due to OOM)

Meaning:

OOM Killer destroyed the process.

%h:host number; %c: channel number; %i: id; %l: lun number

Corrective action:

Add memory, or reduce the system load.

Severity:

Warning

Action:

(/ /T/S)

14167

sd:%s Device error (malformed MODE SENSE response) vendor=%v model=%m serial-no=%ser

Meaning:

An unknown Mode Sense was returned.

%s:sd[a-z]* or %h:%c:%i:%l

%h: host number; %c: channel number; %i: id; %l: lun number

%v: (Example) FUJITSU

%m: (Example) MAP3367NC

%ser: (Example) 01234567

Corrective action:

If a single drive is used, replace the disk. If an ETERNUS machine is used, examine it.

Severity:

Warning

Action:

(R/M/T/S)

14168

scsi: Software error (FC Virtual Port device add failed)

Meaning:

FC Virtual Port device addition failed.

Corrective action:

Collect the data for investigation (dump or fjsnap). Contact your sales representative or a field engineer.

Severity:

Warning

Action:

(/ /T/S)

14169

scsi: Software error (FC Virtual Port LLDD Create failed)

Meaning:

FC Virtual Port LLDD creation failed.

Corrective action:

Collect the data for investigation (dump or fjsnap). Contact your sales representative or a field engineer.

Severity:

Warning

Action:

(/ /T/S)

14170

scsi:%h:%c:%i:%l Software error (Cannot create vport symlinks)

Meaning:

vport symlinks cannot be created.

%h: host number

%c: channel number

%i: id

%l: lun number

Corrective action:

Collect the data for investigation (dump or fjsnap). Contact your sales representative or a field engineer.

Severity:

Warning

Action:

(/ /T/S)

14171

sd:%h:%c:%i:%l Device error (unsupported protection type) vendor=%v model=%m serial-no=%ser

Meaning:

This type of disk cannot be formatted.

%h: host number; %c: channel number; %i: id; %l: lun number

Corrective action:

Replace the disk.

Severity:

Warning

Action:

(R/M/T/S)

14172

sd:%s Software error (missing header in MODE_SENSE response)

Meaning:

The Mode Sense information is missing.

%s:sd[a-z]* or %h:%c:%i:%l

%h: host number; %c: channel number; %i: id; %l: lun number

Corrective action:

Collect the data for investigation (dump or fjsnap). Contact your sales representative or a field engineer.

Severity:

Warning

Action:

(/ /T/S)

14173

sg: Software error (idr expansion Sg_device failure)

Meaning:

Memory is insufficient. A control table could not be allocated.

Corrective action:

Add memory, or reduce the load.

Severity:

Warning

Action:

(/ /T/S)

14174

sg: Software error (idr allocation Sg_device failure)

Meaning:

Memory is insufficient. A control table could not be allocated.

Corrective action:

Add memory, or reduce the load.

Severity:

Warning

Action:

(/ /T/S)

14175

sg: Software error (sg_add device_create failed)

Meaning:

Memory is insufficient. A control table could not be allocated.

Corrective action:

Add memory, or reduce the load.

If the problem persists, collect fjsnap, and contact your sales representative or a field engineer.

Severity:

Warning

Action:

(/ /T/S)

14176

sg: Software error (sg_sys Invalid)

Meaning:

A driver has a fault. An inconsistency occurred.

Corrective action:

Collect the data for investigation (dump or fjsnap). Contact your sales representative or a field engineer.

Severity:

Warning

Action:

(/ /T/S)

14178

st:st[0-9]* Software error (device_create failed)

Meaning:

Execution of device_create() failed.

Corrective action:

Collect the data for investigation (dump or fjsnap). Contact your sales representative or a field engineer.

Severity:

Warning

Action:

(/ /T/S)

14179

scsi: Software error (can't init scsi sdb cache)

Meaning:

Caching of an I/O request failed. Memory may be insufficient.

Corrective action:

Add memory, or reduce the load.

Severity:

Warning

Action:

(/ /T/S)

14180

scsi:%h:%c:%i:%l Device error (in wrong state to complete scan) vendor=%v model=%m serial-no=%ser

Meaning:

Scanning of the faulty device has been completed.

%h: host number; %c: channel number; %i: id; %l: lun number

Corrective action:

Check the condition of the device.

Severity:

Warning

Action:

(/ /T/S)

14181

scsi:%h:%c:%i:%l Software error (Found incompatible tape)

Meaning:

The device is controlling off the subject of st that the system administrator

sets.

%h: host number; %c: channel number; %i: id; %l: lun number

Corrective action:

Change the driver.

Severity:

Warning

Action:

(/ /T/S)

14182

scsi: Software error (Allocation failure during SCSI scanning)

Meaning:

Memory is insufficient.

Corrective action:

Add memory, or reduce the load.

Severity:

Warning

Action:

(/ /T/S)

14183

scsi: Software error (allocation failure)

Meaning:

Allocation of the target area in scsi_alloc_target() failed. Memory may be insufficient.

Corrective action:

Add memory, or reduce the load.

Severity:

Warning

Action:

(/ /T/S)

7．2．9．ETERNUS multipath driver messages [Linux]

This section lists an ETERNUS multipath driver-related message.

15039

MPD: Adapter or Device or FC-Network error (MPD detected event)

Meaning:

The multipath driver detected an I/O or FC multipath configuration error.

Corrective action:

Take corrective action according to the messages that the multipath driver outputs and the instructions in the *ETERNUS Multipath Driver User's Guide*.

Severity:

Warning

Action:

(/ /T/S)

7.2.10. GDS messages [Linux]

This section lists GDS-related messages.

16000

GDS: /dev/sdx Device error (read error on slice) vendor=%v model=%m serial-no=%ser

Meaning:

A read request sent to a slice terminated abnormally.

%v: (Example) FUJITSU

%m: (Example) MAP3367NC

%ser: (Example) 01234567

Corrective action:

A disk failure may have occurred. From the driver log message, define the failure cause, to recover from the failure.

Severity:

Error

Action:

(R/M/T/S)

16001

GDS: /dev/sdx Device error (read error on disk) vendor=%v model=%m serial-no=%ser

Meaning:

A read request sent to a disk terminated abnormally.

%v: (Example) FUJITSU

%m: (Example) MAP3367NC

%ser: (Example) 01234567

Corrective action:

A disk failure may have occurred. From the driver log message, define the failure cause, to recover from the failure.

Severity:

Error

Action:

(R/M/T/S)

16002

GDS: /dev/sdx Device error (read and writeback error on slice) vendor=%v model=%m serial-no=%ser

Meaning:

A read request and a write-back request sent to a slice terminated abnormally.

%v: (Example) FUJITSU

%m: (Example) MAP3367NC

%ser: (Example) 01234567

Corrective action:

A disk failure may have occurred. From the driver log message, define the failure cause, to recover from the failure.

Severity:

Error

Action:

(R/M/T/S)

16003

GDS: /dev/sdx Device error (open error on slice) vendor=%v model=%m serial-no=%ser

Meaning:

The open process for a slice returned abnormally.

%v: (Example) FUJITSU

%m: (Example) MAP3367NC

%ser: (Example) 01234567

Corrective action:

A disk failure may have occurred. From the driver log message, define the failure cause, to recover from the failure.

Severity:

Error

Action:

(R/M/T/S)

16004

GDS: /dev/sdx Device error (open error on disk) vendor=%v model=%m serial-no=%ser

Meaning:

The open process for a disk returned abnormally.

%v: (Example) FUJITSU

%m: (Example) MAP3367NC

%ser: (Example) 01234567

Corrective action:

A disk failure may have occurred. From the driver log message, define the failure cause, to recover from the failure.

Severity:

Error

Action:

(R/M/T/S)

16005

GDS: /dev/sdx Device error (NVURM read error on disk) vendor=%v model=%m serial-no=%ser

Meaning:

An NVURM read request sent to a disk terminated abnormally.

%v: (Example) FUJITSU

%m: (Example) MAP3367NC

%ser: (Example) 01234567

Corrective action:

A disk failure may have occurred. From the driver log message, define the failure cause, to recover from the failure.

Severity:

Error

Action:

(R/M/T/S)

16006

GDS: /dev/sdx Device error (volume status log write error on disk) vendor=%v model=%m serial-no=%ser

Meaning:

A volume status log write request sent to a disk terminated abnormally.

%v: (Example) FUJITSU

%m: (Example) MAP3367NC

%ser: (Example) 01234567

Corrective action:

A disk failure may have occurred. From the driver log message, define the failure cause, to recover from the failure.

Severity:

Error

Action:

(R/M/T/S)

16007

GDS: /dev/sdx Device error (write error on slice) vendor=%v model=%m serial-no=%ser

Meaning:

A write request sent to a slice terminated abnormally.

%v: (Example) FUJITSU

%m: (Example) MAP3367NC

%ser: (Example) 01234567

Corrective action:

A disk failure may have occurred. From the driver log message, define the failure cause, to recover from the failure.

Severity:

Error

Action:

(R/M/T/S)

16008

GDS: /dev/sdx Device error (write error on disk) vendor=%v model=%m serial-no=%ser

Meaning:

A write request sent to a disk terminated abnormally.

%v: (Example) FUJITSU

%m: (Example) MAP3367NC

%ser: (Example) 01234567

Corrective action:

A disk failure may have occurred. From the driver log message, define the failure cause, to recover from the failure.

Severity:

Error

Action:

(R/M/T/S)

16009

GDS: /dev/sdx Device error (close error on disk) vendor=%v model=%m serial-no=%ser

Meaning:

A close request sent to a disk terminated abnormally.

%v: (Example) FUJITSU

%m: (Example) MAP3367NC

%ser: (Example) 01234567

Corrective action:

A disk failure may have occurred. From the driver log message, define the failure cause, to recover from the failure.

Severity:

Error

Action:

(R/M/T/S)

16010

GDS: /dev/sdx Device error (NVURM write error on disk) vendor=%v model=%m serial-no=%ser

Meaning:

An NVURM write request sent to a disk terminated abnormally.

%v: (Example) FUJITSU

%m: (Example) MAP3367NC

%ser: (Example) 01234567

Corrective action:

A disk failure may have occurred. From the driver log message, define the failure cause, to recover from the failure.

When you hot replace a disk duplicated by GDS, this message may be output at the disk power-on/off time. In that case, check the GDS status. If there is no problem with it, no action is necessary.

Severity:

Error

Action:

(R/M/T/S)

16011

GDS: /dev/sdx Device error (failed to abort I/O requests on disk) vendor=%v model=%m serial-no=%ser

Meaning:

A request sent to a physical disk (ioctl request to the mphd or mplb driver) to abort an I/O request terminated abnormally.

%v: (Example) FUJITSU

%m: (Example) MAP3367NC

%ser: (Example) 01234567

Corrective action:

A disk failure may have occurred. From the driver log message, define the failure cause, to recover from the failure.

Severity:

Error

Action:

(R/M/T/S)

7.2.11. GLS messages [Linux]

This section lists GLS-related messages.

17000

GLS: interface Network error (Link Down at TRUNKING mode) vendor-id=%vi device-id=%d revision=%r

Meaning:

An error occurred in communication with the remote host that used physical interfaces bundled with a virtual interface operating in fast switching mode.

interface = Physical interface name

%vi: (For e100/e1000) 8086

(For bcm5700) 14E4

%d: (Example for e100/e1000) 1209

(Example for bcm5700) 16A8

%r: Numerical value (1 to 3 digits)

Corrective action:

Confirm that the communication path to the remote host has no problems.

Severity:

Error

Action:

(/ /T/S)

17001

GLS: Network error (poll fail retry over.polling stop)

Meaning:

A transmission path error occurred. Polling failed successively until the retry count reached the specified number. The HUB monitoring function will be disabled.

Corrective action:

Check the transmission path. After the normal operation of the transmission path is restored, disable and enable the HUB monitoring function.

Severity:

Error

Action:

(R/M/T/S)

17002

GLS: Network error (primary polling failed. lip=logicalIP target=pollip)

Meaning:

An initial check of a physical interface detected an error in the path to the primary monitoring target.

logicalIP = Logical IP address

pollip = IP address of the monitoring target

Corrective action:

Confirm that the communication path to the monitoring target has no problems.

Severity:

Error

Action:

(R/M/T/S)

17003

GLS: Network error (secondary polling failed. lip=logicalIP target=pollip)

Meaning:

An initial check of a physical interface detected an error in the path to the secondary monitoring target.

logicalIP = Logical IP address

pollip = IP address of the monitoring target

Corrective action:

Confirm that the communication path to the monitoring target has no problems.

Severity:

Error

Action:

(R/M/T/S)

17004

GLS: ifname Network error (Primary polling failed.) vendor-id=%vi device-id=%d revision=%r

Meaning:

Transmission path monitoring on the primary side failed.

ifname = Interface name

pollip = IP address of the monitoring target

%vi: (For e100/e1000) 8086

(For bcm5700) 14E4

%d: (Example for e100/e1000) 1209

(Example for bcm5700) 16A8

%r: Numerical value (1 to 3 digits)

Corrective action:

Confirm that the communication path to the monitoring target has no problems.

Severity:

Error

Action:

(R/M/T/S)

17005

GLS: ifname Network error (Secondary polling failed.) vendor-id=%vi device-id=%d revision=%r

Meaning:

Transmission path monitoring on the secondary side failed.

ifname = Interface name

pollip = IP address of the monitoring target

%vi: (For e100/e1000) 8086

(For bcm5700) 14E4

%d: (Example for e100/e1000) 1209

(Example for bcm5700) 16A8

%r: Numerical value (1 to 3 digits)

Corrective action:

Confirm that the communication path to the monitoring target has no problems.

Severity:

Error

Action:

(R/M/T/S)

17006

GLS: ifname Network error (PrimaryHUB to SecondaryHUB polling failed.) vendor-id=%vi device-id=%d revision=%r

Meaning:

HUB-to-HUB monitoring on the primary side failed.

ifname = Interface name

pollip = IP address of the monitoring target

%vi: (For e100/e1000) 8086

(For bcm5700) 14E4

%d: (Example for e100/e1000) 1209

(Example for bcm5700) 16A8

%r: Numerical value (1 to 3 digits)

Corrective action:

Confirm that the communication path to the monitoring target has no problems.

Severity:

Error

Action:

(R/M/T/S)

17007

GLS: ifname Network error (SecondaryHUB to PrimaryHUB polling failed.) vendor-id=%vi device-id=%d revision=%r

Meaning:

HUB-to-HUB monitoring on the secondary side failed.

ifname = Interface name

pollip = IP address of the monitoring target

%vi: (For e100/e1000) 8086

(For bcm5700) 14E4

%d: (Example for e100/e1000) 1209

(Example for bcm5700) 16A8

%r: Numerical value (1 to 3 digits)

Corrective action:

Confirm that the communication path to the monitoring target has no problems.

Severity:

Error

Action:

(R/M/T/S)

17008

GLS: Network error (route error is noticed.(sourceip))

Meaning:

A path error was reported from the remote system.

sourceip = Transmission source IP address

Corrective action:

Confirm that the communication path to the transmission source has no problems.

Severity:

Error

Action:

(/ /T/S)

17009

GLS: Network error (route error is noticed.(target=IP))

Meaning:

A path error was detected from the remote system.

IP = Remote IP address

Corrective action:

Confirm that the communication path to the transmission source has no problems.

Severity:

Error

Action:

(/ /T/S)

17010

GLS: Network error (all lines disabled (devicename))

Meaning:

All physical interfaces bundled with a virtual interface operating in fast switching mode are down.

devicename = Virtual interface name

Corrective action:

For all physical interfaces, confirm that the communication path to the remote host has no problems.

Severity:

Error

Action:

(/ /T/S)

17011

GLS: Network error (some lines in operation (devicename))

Meaning:

Some physical interfaces bundled with a virtual interface operating in fast switching mode are down (or up).

devicename = Virtual interface name

Corrective action:

For physical interfaces that are down, confirm that the communication path to the remote host has no problems.

Severity:

Error

Action:

(/ /T/S)

7.2.12. ServerView RAID messages [Linux]

This section lists ServerView RAID-related messages.

18500

SV RAID:%2 Adapter error (BBU temperature out of range) vendor-id=1000/1734 device-id=%d revision=%r

Meaning:

An abnormal battery temperature was detected.

%2: Device name

%d: (Example) 0060/10F9 (device-id/sub device-id)

%r: Numerical value (1 to 3 digits)

Corrective action:

Check the fan status in ServerView RAID. If a fan failure occurred, take corrective action for the target unit. For details on how to check the status in ServerView RAID, see the *ServerView Suite ServerView RAID Management User Manual*.

If no fan failure occurred, recheck the environment temperature. If the error recurs after you rechecked the environment temperature, replace the BBU.

Severity:

Error

Action:

(R/M/T/S)

18501

SV RAID:%2 Adapter error (BBU temperature unstable) vendor-id=1000/1734 device-id=%d revision=%r

Meaning:

An abnormal battery temperature was detected.

%2: Device name

%d: (Example) 0060/10F9 (device-id/sub device-id)

%r: Numerical value (1 to 3 digits)

Corrective action:

Check the fan status in ServerView RAID. If a fan failure occurred, take corrective action for the target unit. For details on how to check the status in ServerView RAID, see the *ServerView Suite ServerView RAID Management User Manual*.

If no fan failure occurred, recheck the environment temperature. If the error recurs after you rechecked the environment temperature, replace the BBU.

Severity:

Error

Action:

(R/M/T/S)

18502

SV RAID:%2 Adapter error (BBU temperature above threshold) vendor-id=1000/1734 device-id=%d revision=%r

Meaning:

An abnormal battery temperature was detected.

%2: Device name

%d: (Example) 0060/10F9 (device-id/sub device-id)

%r: Numerical value (1 to 3 digits)

Corrective action:

Check the fan status in ServerView. If a fan failure occurred, take corrective action for the target unit.

If no fan failure occurred, recheck the environment temperature. If the error recurs after you rechecked the environment temperature, replace the BBU.

Severity:

Error

Action:

(R/M/T/S)

18503

SV RAID:%2 Adapter error (BBU voltage out of range) vendor-id=1000/1734 device-id=%d revision=%r

Meaning:

An abnormal battery voltage was detected.

%2: Device name

%d: (Example) 0060/10F9 (device-id/sub device-id)

%r: Numerical value (1 to 3 digits)

Corrective action:

Replace the BBU. If the error recurs, replace the possibly faulty component of the SAS interface system.

Severity:

Error

Action:

(R/M/T/S)

18504

SV RAID:%2 Adapter error (BBU voltage unstable) vendor-id=1000/1734 device-id=%d revision=%r

Meaning:

The battery voltage is unstable.

%2: Device name

%d: (Example) 0060/10F9 (device-id/sub device-id)

%r: Numerical value (1 to 3 digits)

Corrective action:

Replace the BBU. If the error recurs, replace the possibly faulty component of the SAS interface system.

Severity:

Error

Action:

(R/M/T/S)

18505

SV RAID:%2 Adapter error (BBU communication error) vendor-id=1000/1734 device-id=%d revision=%r

Meaning:

An error occurred in communication with the BBU.

%2: Device name

%d: (Example) 0060/10F9 (device-id/sub device-id)

%r: Numerical value (1 to 3 digits)

Corrective action:

Replace the BBU. If the error recurs, replace the possibly faulty component of the SAS interface system.

Severity:

Error

Action:

(R/M/T/S)

18506

SV RAID:%2 Adapter error (BBU failed) vendor-id=1000/1734 device-id=%d revision=%r

Meaning:

A problem occurred in the battery.

%2: Device name

%d: (Example) 0060/10F9 (device-id/sub device-id)

%r: Numerical value (1 to 3 digits)

Corrective action:

Replace the BBU.

Severity:

Error

Action:

(R/M/T/S)

18507

SV RAID:%2 Adapter error (BBU fast charging failed) vendor-id=1000/1734 device-id=%d revision=%r

Meaning:

Fast charging of the battery failed.

%2: Device name

%d: (Example) 0060/10F9 (device-id/sub device-id)

%r: Numerical value (1 to 3 digits)

Corrective action:

Replace the BBU.

Severity:

Error

Action:

(R/M/T/S)

18508

SV RAID:%2 Adapter error (BBU charge count exceeded) vendor-id=1000/1734 device-id=%d revision=%r

Meaning:

The battery charge count exceeded the upper limit.

%2: Device name

%d: (Example) 0060/10F9 (device-id/sub device-id)

%r: Numerical value (1 to 3 digits)

Corrective action:

Replace the BBU.

Severity:

Warning

Action:

(R/M/T/S)

18509

SV RAID:%2 Device error (Rebuild on disk failed)

Meaning:

The rebuild attempt on the HDD failed.

%2: Device name

Corrective action:

If the target logical drive is degraded, replace the HDD, and perform a rebuild. If the target logical drive is offline, take corrective action according to the multi-dead recovery procedure.

Severity:

Error

Action:

(R/M/T/S)

18510

SV RAID:%2 Device error (Rebuild failed on logical drive)

Meaning:

The rebuild on the logical drive failed.

%2: Device name

Corrective action:

If the target logical drive is degraded, replace the HDD, and perform a rebuild. If the target logical drive is offline, take corrective action according to the multi-dead recovery procedure.

Severity:

Error

Action:

(R/M/T/S)

18511

SV RAID:%2 Device error (Migration failed on logical drive)

Meaning:

Logical drive capacity expansion failed.

%2: Device name

Corrective action:

Reconfigure the array. Restore data from a backup.

Severity:

Error

Action:

(R/M/T/S)

18512

SV RAID:%2 Device error (Migration aborted on logical drive)

Meaning:

Logical drive capacity expansion was interrupted.

%2: Device name

Corrective action:

Reconfigure the array. Restore data from a backup.

Severity:

Warning

Action:

(R/M/T/S)

18513

SV RAID:%2 Device error (Logical drive degraded)

Meaning:

The logical drive entered the degraded state.

%2: Device name

Corrective action:

Replace the faulty HDD. Perform a rebuild.

Severity:

Error

Action:

(R/M/T/S)

18514

SV RAID:%2 Device error (Logical drive failed)

Meaning:

The logical drive entered the offline state.

%2: Device name

Corrective action:

Take corrective action according to the multi-dead recovery procedure.

Severity:

Error

Action:

(R/M/T/S)

18515

SV RAID:%2 Adapter error (BBU voltage problem detected) vendor-id=1000/1734 device-id=%d revision=%r

Meaning:

An abnormal battery voltage was detected.

%2: Device name

%d: (Example) 0060/10F9 (device-id/sub device-id)

%r: Numerical value (1 to 3 digits)

Corrective action:

Replace the BBU. If the error recurs, replace the possibly faulty component of the SAS interface system.

Severity:

Error

Action:

(R/M/T/S)

18516

SV RAID:%2 Adapter error (BBU temperature problem detected) vendor-id=1000/1734 device-id=%d revision=%r

Meaning:

An abnormal battery temperature was detected.

%2: Device name

%d: (Example) 0060/10F9 (device-id/sub device-id)

%r: Numerical value (1 to 3 digits)

Corrective action:

Check the fan status in ServerView. If a fan failure occurred, take corrective action for the target unit. If no fan failure occurred, recheck the environment temperature. If the error recurs after you rechecked the environment temperature, replace the BBU.

Severity:

Error

Action:

(R/M/T/S)

18517

SV RAID:%2 Adapter error (BBU failed) vendor-id=1000/1734 device-id=%d revision=%r

Meaning:

A battery failure occurred.

%2: Device name

%d: (Example) 0060/10F9 (device-id/sub device-id)

%r: Numerical value (1 to 3 digits)

Corrective action:

Replace the BBU.

Severity:

Error

Action:

(R/M/T/S)

18518

SV RAID:%2 Adapter error (Fatal firmware error) vendor-id=1000 device-id=%d revision=%r

Meaning:

A fatal error occurred in firmware.

%2: Device name

%d: (Example) 0079

%r: Numerical value (1 to 3 digits)

Corrective action:

Replace the possibly faulty component of the SAS interface system.

Severity:

Error

Action:

(R/M/T/S)

18519

SV RAID:%2 Adapter error (Multi-bit ECC error) vendor-id=1000/1734 device-id=%d revision=%r

Meaning:

A multi-bit error was detected.

%2: Device name

%d: (Example) 0060/10F9 (device-id/sub device-id)

%r: Numerical value (1 to 3 digits)

Corrective action:

Replace the array controller.

Severity:

Error

Action:

(R/M/T/S)

18520

SV RAID:%2 Adapter error (Single-bit ECC error) vendor-id=1000/1734 device-id=%d revision=%r

Meaning:

A single-bit error was detected.

%2: Device name

%d: (Example) 0060/10F9 (device-id/sub device-id)

%r: Numerical value (1 to 3 digits)

Corrective action:

Replace the array controller.

Severity:

Error

Action:

(R/M/T/S)

18521

SV RAID:%2 Adapter error (Not enough adapter memory) vendor-id=1000/1734 device-id=%d revision=%r

Meaning:

The memory of the controller is insufficient.

%2: Device name

%d: (Example) 0060/10F9 (device-id/sub device-id)

%r: Numerical value (1 to 3 digits)

Corrective action:

Replace the possibly faulty component of the SAS interface system.

Severity:

Error

Action:

(R/M/T/S)

18522

SV RAID:%2 Device error (Resume migration of logical drive failed due to Configuration Mismatch)

Meaning:

The resumption of capacity expansion failed because of a configuration mismatch.

%2: Device name

Corrective action:

Reconfigure the array. Restore data from a backup.

Severity:

Error

Action:

(R/M/T/S)

18523

SV RAID:%2 Device error (Hot spare S.M.A.R.T. polling failed on disk)

Meaning:

S.M.A.R.T. polling to a spare disk failed.

%2: Device name

Corrective action:

Replace the target HDD. After the replacement, configure S.M.A.R.T. settings and other settings on the spare disk.

Severity:

Error

Action:

(R/M/T/S)

18524

SV RAID:%2 Device error (Predictive failure)

Meaning:

An HDD failure is predicted.

%2: Device name

Corrective action:

Perform preventive replacement of the HDD.

Severity:

Error

Action:

(R/M/T/S)

18525

SV RAID:%2 Adapter error (BBU needs to be replaced - SOH bad) vendor-id=1000/1734 device-id=%d revision=%r

Meaning:

The BBU must be replaced.

%2: Device name

%d: (Example) 0060/10F9 (device-id/sub device-id)

%r: Numerical value (1 to 3 digits)

Corrective action:

Replace the BBU.

Severity:

Error

Action:

(R/M/T/S)

18526

SV RAID:%2 Adapter error (BBU removed) vendor-id=1000 device-id=%d revision=%r

Meaning:

The BBU was removed.

%2: Device name

%d: (Example) 0079

%r: Numerical value (1 to 3 digits)

Corrective action:

Wait for battery charge to be completed. If the problem persists even after the completion of charge, replace the BBU.

Severity:

Warning

Action:

(R/M/T/S)

18527

SV RAID:%2 Adapter error (Enclosure communication lost) vendor-id=1000/1734 device-id=%d revision=%r

Meaning:

The connection with the enclosure was terminated.

%2: Device name

%d: (Example) 0060/10F9 (device-id/sub device-id)

%r: Numerical value (1 to 3 digits)

Corrective action:

Review the system connection configuration. If the error recurs, replace the possibly faulty component of the SAS interface system.

Severity:

Warning

Action:

(R/M/T/S)

18528

SV RAID:%2 Adapter error (Enclosure not responding) vendor-id=1000/1734 device-id=%d revision=%r

Meaning:

The enclosure has not responded.

%2: Device name

%d: (Example) 0060/10F9 (device-id/sub device-id)

%r: Numerical value (1 to 3 digits)

Corrective action:

Review the system connection configuration. If the error recurs, replace the possibly faulty component of the SAS interface system.

Severity:

Warning

Action:

(R/M/T/S)

18529

SV RAID:%2 Adapter error (SAS/SATA mixing not supported in enclosure) vendor-id=1000/1734 device-id=%d revision=%r

Meaning:

The enclosure does not support the mixture of SAS and SATA.

%2: Device name

%d: (Example) 0060/10F9 (device-id/sub device-id)

%r: Numerical value (1 to 3 digits)

Corrective action:

Replace the device with the correct HDD. (SATA HDDs are not supported.)

Severity:

Warning

Action:

(R/M/T/S)

18530

SV RAID:%2 Device error (Bad block table on disk is 80% full)

Meaning:

More than 80% of the bad block table is being used.

%2: Device name

Corrective action:

Many defective blocks cannot be recovered. If a file cannot be read, restore the file from a backup.

Severity:

Info

Action:

(R/M/T/S)

18531

SV RAID:%2 Device error (Bad block table on disk is full; unable to log Block)

Meaning:

The bad block table is full.

%2: Device name

Corrective action:

Many defective blocks cannot be recovered. If a file cannot be read, restore the file from a backup.

Severity:

Error

Action:

(R/M/T/S)

18532

SV RAID:%2 Adapter error (BBU/charger problems detected; SOH bad) vendor-id=1000/1734 device-id=%d revision=%r

Meaning:

A BBU charger problem was detected.

%2: Device name

%d: (Example) 0060/10F9 (device-id/sub device-id)

%r: Numerical value (1 to 3 digits)

Corrective action:

Replace the BBU. If the error recurs, replace the possibly faulty component of the SAS interface system.

Severity:

Warning

Action:

(R/M/T/S)

18533

SV RAID:%2 Adapter error (Single-bit ECC error; warning threshold exceeded) vendor-id=1000 device-id=%d revision=%r

Meaning:

A single-bit error was detected.

%2: Device name

%d: (Example) 0079

%r: Numerical value (1 to 3 digits)

Corrective action:

Replace the array controller.

Severity:

Warning

Action:

(R/M/T/S)

18534

SV RAID:%2 Adapter error (Single-bit ECC error; critical threshold exceeded) vendor-id=1000 device-id=%d revision=%r

Meaning:

A single-bit error was detected.

%2: Device name

%d: (Example) 0079

%r: Numerical value (1 to 3 digits)

Corrective action:

Replace the array controller.

Severity:

Warning

Action:

(R/M/T/S)

18535

SV RAID:%2 Adapter error (Single-bit ECC error; further reporting disabled) vendor-id=1000 device-id=%d revision=%r

Meaning:

A single-bit error was detected.

%2: Device name

%d: (Example) 0079

%r: Numerical value (1 to 3 digits)

Corrective action:

Replace the array controller. If the error recurs, replace the possibly faulty component of the SAS interface system.

Severity:

Info

Action:

(R/M/T/S)

18536

SV RAID:%2 Adapter error (Previous configuration completely missing at boot) vendor-id=1000/1734 device-id=%d revision=%r

Meaning:

The configuration could not be found at startup.

%2: Device name

%d: (Example) 0060/10F9 (device-id/sub device-id)

%r: Numerical value (1 to 3 digits)

Corrective action:

Power off the system. Then, confirm that the HDD, cable, power supply, and other components are correctly connected. If the error recurs, replace the possibly faulty component of the SAS interface system.

Severity:

Warning

Action:

(R/M/T/S)

18537

SV RAID:%2 Device error (Logical drive partially degraded)

Meaning:

The logical drive entered the degraded state.

%2: Device name

Corrective action:

Replace the degraded HDD. Perform a rebuild.

Severity:

Error

Action:

(R/M/T/S)

18538

SV RAID:%2 Device error (Disks missing)

Meaning:

The HDD does not exist.

%2: Device name

Corrective action:

Replace the dead HDD. Perform a rebuild.

Severity:

Warning

Action:

(R/M/T/S)

18539

SV RAID:%2 Device error (State change on logical drive from operational to degraded)

Meaning:

The logical drive state changed from online to degraded.

%2: Device name

Corrective action:

Replace the degraded HDD. Perform a rebuild.

Severity:

Error

Action:

(R/M/T/S)

18540

SV RAID:%2 Device error (State change on logical drive from operational to partially degraded)

Meaning:

The logical drive state changed from online to degraded.

%2: Device name

Corrective action:

Replace the degraded HDD. Perform a rebuild.

Severity:

Error

Action:

(R/M/T/S)

18541

SV RAID:%2 Device error (State change on logical drive from operational to failed)

Meaning:

The logical drive state changed from online to offline.

%2: Device name

Corrective action:

Take corrective action according to the multi-dead recovery procedure.

Severity:

Error

Action:

(R/M/T/S)

18542

SV RAID:%2 Device error (State change on logical drive from degraded to degraded)

Meaning:

The logical drive entered the degraded state.

%2: Device name

Corrective action:

Replace the degraded HDD. Perform a rebuild.

Severity:

Error

Action:

(R/M/T/S)

18543

SV RAID:%2 Device error (State change on logical drive from degraded to partially degraded)

Meaning:

The logical drive entered the degraded state.

%2: Device name

Corrective action:

Replace the degraded HDD. Perform a rebuild.

Severity:

Error

Action:

(R/M/T/S)

18544

SV RAID:%2 Device error (State change on logical drive from degraded to failed)

Meaning:

The logical drive state changed from degraded to offline.

%2: Device name

Corrective action:

Take corrective action according to the multi-dead recovery procedure.

Severity:

Error

Action:

(R/M/T/S)

18545

SV RAID:%2 Device error (State change on logical drive from partially degraded to degraded)

Meaning:

The logical drive entered the degraded state.

%2: Device name

Corrective action:

Replace the degraded HDD. Perform a rebuild.

Severity:

Error

Action:

(R/M/T/S)

18546

SV RAID:%2 Device error (State change on logical drive from partially degraded to partially degraded)

Meaning:

The logical drive entered the degraded state.

%2: Device name

Corrective action:

Replace the degraded HDD. Perform a rebuild.

Severity:

Error

Action:

(R/M/T/S)

18547

SV RAID:%2 Device error (State change on logical drive from partially degraded to failed)

Meaning:

The logical drive state changed from degraded to offline.

%2: Device name

Corrective action:

Take corrective action according to the multi-dead recovery procedure.

Severity:

Error

Action:

(R/M/T/S)

18548

SV RAID:%2 Device error (State change on logical drive from failed to failed)

Meaning:

The logical drive entered the offline state.

%2: Device name

Corrective action:

Take corrective action according to the multi-dead recovery procedure.

Severity:

Error

Action:

(R/M/T/S)

18549

SV RAID:%2 Device error (State change by user on disk from failed to failed)

Meaning:

The HDD entered the failed state.

%2: Device name

Corrective action:

Replace the failed HDD. Perform a rebuild.

Severity:

Error

Action:

(R/M/T/S)

18550

SV RAID:%2 Device error (State change by user on disk from hotspare to failed)

Meaning:

The HDD state changed from HotSpare to failed.

%2: Device name

Corrective action:

Replace the failed HDD. Set HotSpare.

Severity:

Error

Action:

(R/M/T/S)

18551

SV RAID:%2 Device error (State change by user on disk from rebuilding to failed)

Meaning:

The HDD state changed from rebuilding to failed.

%2: Device name

Corrective action:

Replace the failed HDD. Perform a rebuild.

Severity:

Error

Action:

(R/M/T/S)

18552

SV RAID:%2 Device error (State change by user on disk from operational to failed)

Meaning:

The HDD state changed from operational to failed.

%2: Device name

Corrective action:

Replace the failed HDD. Perform a rebuild.

Severity:

Error

Action:

(R/M/T/S)

18553

SV RAID:%2 Device error (State change on disk from failed to failed)

Meaning:

The HDD entered the failed state.

%2: Device name

Corrective action:

Replace the failed HDD. Perform a rebuild.

Severity:

Error

Action:

(R/M/T/S)

18554

SV RAID:%2 Device error (State change on disk from hot spare to failed)

Meaning:

Replace the dead HDD. Set HotSpare.

%2: Device name

Corrective action:

Replace the dead HDD. Set HotSpare.

Severity:

Error

Action:

(R/M/T/S)

18555

SV RAID:%2 Device error (State change on disk from rebuilding to failed)

Meaning:

Replace the dead HDD. Perform a rebuild.

%2: Device name

Corrective action:

Replace the dead HDD. Perform a rebuild.

Severity:

Error

Action:

(R/M/T/S)

18556

SV RAID:%2 Device error (State change on disk from operational to failed)

Meaning:

The HDD state changed from operational to failed.

%2: Device name

Corrective action:

Replace the failed HDD. Perform a rebuild.

Severity:

Error

Action:

(R/M/T/S)

18557

SV RAID:%2 Device error (Disk missing after reboot)

Meaning:

The HDD could not be found at restart.

%2: Device name

Corrective action:

Replace the HDD. Perform a rebuild. If the Fault LED is not on, a SAS interface system failure may have occurred. Replace the possibly faulty component of the SAS interface system. However, this event may occur on starting the operating system after adding an optional card or hard disk to, or removing it from, a server with this product mounted. In such case, check the status of the array by using ServerView RAID Manager. If the array status is recognized as being normal, there is no problem and you can ignore this message.

Severity:

Error

Action:

(R/M/T/S)

18558

SV RAID:%2 Adapter error (Logical drive missing after reboot) vendor-id=1000/1734 device-id=%d revision=%r

Meaning:

The logical drive could not be found at restart.

%2: Device name

%d: (Example) 0060/10F9 (device-id/sub device-id)

%r: Numerical value (1 to 3 digits)

Corrective action:

If the error occurred after a change to the array configuration, no action is necessary. If the error occurred during normal operation or after maintenance work, power off the system, and confirm that the HDD is correctly connected. If the array configuration is not recognized after startup, perform a restart so that it can be recognized. Note that this event may occur on starting the operating system after adding an optional card or hard disk to, or removing it from, a server with this product mounted. In such case, check the status of the array by using ServerView RAID Manager. If the array status is recognized as being normal, there is no problem and you can ignore this message.

Severity:

Error

Action:

(R/M/T/S)

18559

SV RAID:%2 Device error (State change by user on disk from hot spare to offline)

Meaning:

The HDD state changed from HotSpare to offline.

%2: Device name

Corrective action:

Replace the offline HDD. Perform a rebuild. For multi-dead, take corrective action according to the multi-dead recovery procedure.

Severity:

Error

Action:

(R/M/T/S)

18560

SV RAID:%2 Device error (State change by user on disk from offline to failed)

Meaning:

The HDD state changed from offline to failed.

%2: Device name

Corrective action:

Replace the offline HDD. Perform a rebuild.

Severity:

Error

Action:

(R/M/T/S)

18561

SV RAID:%2 Device error (State change by user on disk from operational to offline)

Meaning:

The HDD state changed from operational to offline.

%2: Device name

Corrective action:

Replace the offline HDD. Perform a rebuild.

Severity:

Warning

Action:

(R/M/T/S)

18562

SV RAID:%2 Device error (State change by user on disk from rebuilding to offline)

Meaning:

The HDD state changed from rebuilding to offline.

%2: Device name

Corrective action:

Replace the offline HDD. Perform a rebuild. For multi-dead, take corrective action according to the multi-dead recovery procedure.

Severity:

Warning

Action:

(R/M/T/S)

18563

SV RAID:%2 Device error (State change on disk from hot spare to offline)

Meaning:

The HDD state changed from HotSpare to offline.

%2: Device name

Corrective action:

Replace the offline HDD. Perform a rebuild. For multi-dead, take corrective action according to the multi-dead recovery procedure.

(HotSpare is not supported.)

Severity:

Warning

Action:

(R/M/T/S)

18564

SV RAID:%2 Device error (State change on disk from offline to failed)

Meaning:

The HDD state changed from offline to failed.

%2: Device name

Corrective action:

Replace the offline HDD. Perform a rebuild.

Severity:

Error

Action:

(R/M/T/S)

18565

SV RAID:%2 Device error (State change on disk from operational to offline)

Meaning:

The HDD state changed from offline to failed.

%2: Device name

Corrective action:

Replace the failed HDD. Perform a rebuild.

Severity:

Error

Action:

(R/M/T/S)

18566

SV RAID:%2 Device error (State change on disk from rebuilding to offline)

Meaning:

The HDD state changed from rebuilding to offline.

%2: Device name

Corrective action:

Replace the offline HDD. Perform a rebuild. For multi-dead, take corrective action according to the multi-dead recovery procedure.

Severity:

Warning

Action:

(R/M/T/S)

18567

SV RAID:%2 Adapter error (SAS port lost link) vendor-id=1000/1734 device-id=%d revision=%r

Meaning:

The SAS link was terminated.

%2: Device name

%d: (Example) 0060/10F9 (device-id/sub device-id)

%r: Numerical value (1 to 3 digits)

Corrective action:

Review the system connection configuration. If the error recurs, replace the possibly faulty component of the SAS interface system.

Severity:

Error

Action:

(R/M/T/S)

18568

SV RAID:%2 Adapter error (Adapter missing after reboot) vendor-id=1000/1734 device-id=%d revision=%r

Meaning:

After the restart, the SAS array controller card could not be found.

%2: Device name

%d: (Example) 0060/10F9 (device-id/sub device-id)

%r: Numerical value (1 to 3 digits)

Corrective action:

Confirm the Enable (RAID)/Disable (NATIVE) setting of the SAS array controller card in the system BIOS.

Severity:

Error

Action:

(R/M/T/S)

18569

SV RAID:%2 Adapter error (Adapter needs replacement; faulty IOP detected) vendor-id=1000/1734 device-id=%d revision=%r

Meaning:

An error was detected in the IO processor of the controller.

%2: Device name

%d: (Example) 0060/10F9 (device-id/sub device-id)

%r: Numerical value (1 to 3 digits)

Corrective action:

Review the system connection configuration. If the problem persists, replace the controller.

Severity:

Error

Action:

(R/M/T/S)

18570

SV RAID:%2 Device error (Microcode update timeout on disk)

Meaning:

The HDD firmware update timed out.

%2: Device name

Corrective action:

If the HDD is faulty, replace the HDD, and perform a rebuild.

Severity:

Warning

Action:

(R/M/T/S)

18571

SV RAID:%2 Device error (Microcode update failed on disk)

Meaning:

The HDD firmware update failed.

%2: Device name

Corrective action:

If the HDD is faulty, replace the HDD, and perform a rebuild.

Severity:

Warning

Action:

(R/M/T/S)

18572

SV RAID:%2 Device error (Adapter cache pinned for missing or offline logical drive)

Meaning:

For the missing logical drive, the cached data of the SAS array controller card has been saved.

%2: Device name

Corrective action:

If the target logical drive is degraded, replace the HDD, and perform a rebuild. If the target logical drive is offline, take corrective action according to the multi-dead recovery procedure.

Severity:

Error

Action:

(R/M/T/S)

18573

SV RAID:%2 Device error (Adapter cache pinned for missing or offline logical drives)

Meaning:

For the missing logical drives, the cached data of the SAS array controller card has been saved.

%2: Device name

Corrective action:

If the target logical drive is degraded, replace the HDD, and perform a rebuild. If the target logical drive is offline, take corrective action according to the multi-dead recovery procedure.

Severity:

Error

Action:

(R/M/T/S)

18574

SV RAID:%2 Device error (Adapter cache discarded by user for missing logical drives)

Meaning:

The cached data of the SAS array controller card was lost.

%2: Device name

Corrective action:

If the target logical drive is degraded, replace the HDD, and perform a rebuild. If the target logical drive is offline, take corrective action according to the multi-dead recovery procedure.

Severity:

Info

Action:

(R/M/T/S)

18575

SV RAID:%2 Device error (Adapter cache destaged for logical drive)

Meaning:

The cached data of the SAS array controller card was lost.

%2: Device name

Corrective action:

If the target logical drive is degraded, replace the HDD, and perform a rebuild. If the target logical drive is offline, take corrective action according to the multi-dead recovery procedure.

Severity:

Info

Action:

(R/M/T/S)

18576

SV RAID:%2 Adapter error (Internal hardware error) vendor-id=1000/1734 device-id=%d revision=%r

Meaning:

An error was detected on the SAS array controller card.

%2: Device name

%d: (Example) 0060/10F9 (device-id/sub device-id)

%r: Numerical value (1 to 3 digits)

Corrective action:

Replace the SAS array controller card.

Severity:

Error

Action:

(R/M/T/S)

18577

SV RAID:%2 Adapter error (Internal hardware error during POST) vendor-id=1000/1734 device-id=%d revision=%r

Meaning:

An error was detected on the SAS array controller card.

%2: Device name

%d: (Example) 0060/10F9 (device-id/sub device-id)

%r: Numerical value (1 to 3 digits)

Corrective action:

Replace the SAS array controller card.

Severity:

Error

Action:

(R/M/T/S)

18578

SV RAID:%2 Device error (Bad block table of disk threshold exceeded; table is about to overflow)

Meaning:

The usage threshold of the bad block table has been exceeded.

%2: Device name

Corrective action:

If the HDD is faulty, replace the HDD, and perform a rebuild.

Severity:

Info

Action:

(R/M/T/S)

18579

SV RAID:%2 Device error (Disk failed due to bad block table overflow)

Meaning:

The HDD failed because of a bad block table overflow.

%2: Device name

Corrective action:

If the HDD is faulty, replace the HDD, and perform a rebuild.

Severity:

Error

Action:

(R/M/T/S)

18580

SV RAID:%2 Device error (Disk failure detected during POST)

Meaning:

An HDD failure was detected during POST.

%2: Device name

Corrective action:

If the HDD is faulty, replace the HDD, and perform a rebuild.

Severity:

Error

Action:

(R/M/T/S)

18581

SV RAID:%2 Adapter error (Failure detected during POST) vendor-id=1000/1734 device-id=%d revision=%r

Meaning:

An error was detected during POST.

%2: Device name

%d: (Example) 0060/10F9 (device-id/sub device-id)

%r: Numerical value (1 to 3 digits)

Corrective action:

Replace the SAS array controller card.

Severity:

Error

Action:

(R/M/T/S)

18582

SV RAID:%2 Device error (Multiple failure on disk detected)

Meaning:

More than one HDD failed.

%2: Device name

Corrective action:

If the target logical drive is degraded, replace the HDD, and perform a rebuild.

If the target logical drive is offline, take corrective action according to the multi-dead recovery procedure.

Severity:

Error

Action:

(R/M/T/S)

18583

SV RAID:%2 Device error (Disk failed since it never entered ready state)

Meaning:

The hard disk did not enter the ready state.

%2: Device name

Corrective action:

If the hard disk is faulty, replace it.

Severity:

Error

Action:

(R/M/T/S)

18584

SV RAID:%2 Adapter error (Internal software interface error) vendor-id=1000 device-id=%d revision=%r

Meaning:

An internal software error occurred.

%2: Device name

%d: (Example) 0079

%r: Numerical value (1 to 3 digits)

Corrective action:

Replace the array controller.

Severity:

Warning

Action:

(R/M/T/S)

18585

SV RAID:%2 Adapter error (Device open error) vendor-id=1000 device-id=%d revision=%r

Meaning: A device open error occurred.

%2: Device name

%d: (Example) 0079

%r: Numerical value (1 to 3 digits)

Corrective action:

Confirm that the version number of the device driver is correct.

Severity:

Warning

Action:

(R/M/T/S)

18586

SV RAID:%2 Adapter error (Ioctl send error) vendor-id=1000 device-id=%d revision=%r

Meaning: An I/O control error occurred.

%2: Device name

%d: (Example) 0079

%r: Numerical value (1 to 3 digits)

Corrective action:

Confirm that the version number of the device driver is correct.

Severity:

Warning

Action:

(R/M/T/S)

18587

SV RAID:%2 Adapter error (Insufficient application memory) vendor-id=1000 device-id=%d revision=%r

Meaning: Application memory is insufficient.

%2: Device name

%d: (Example) 0079

%r: Numerical value (1 to 3 digits)

Corrective action:

Replace the array controller.

Severity:

Warning

Action:

(R/M/T/S)

18588

SV RAID:%2 Adapter error (System API error) vendor-id=1000 device-id=%d revision=%r

Meaning:

A system API error occurred.

%2: Device name

%d: (Example) 0079

%r: Numerical value (1 to 3 digits)

Corrective action:

Replace the array controller.

Severity:

Warning

Action:

(R/M/T/S)

18589

SV RAID:%2 Adapter error (Firmware initialization failed) vendor-id=1000 device-id=%d revision=%r

Meaning:

Initialization of the firmware failed.

%2: Device name

%d: (Example) 0079

%r: Numerical value (1 to 3 digits)

Corrective action:

Replace the array controller.

Severity:

Error

Action:

(R/M/T/S)

18590

SV RAID:%2 Adapter error (Firmware recovery failed) vendor-id=1000 device-id=%d revision=%r

Meaning:

Firmware recovery failed.

%2: Device name

%d: (Example) 0079

%r: Numerical value (1 to 3 digits)

Corrective action:

Replace the array controller.

Severity:

Error

Action:

(R/M/T/S)

18591

SV RAID:%2 Adapter error (BBU requires reconditioning; please initiate recalibration) vendor-id=1000 device-id=%d revision=%r

Meaning:

The BBU needs reconditioning.

%2: Device name

%d: (Example) 0079

%r: Numerical value (1 to 3 digits)

Corrective action:

Perform a recalibration. If the error recurs after the recalibration, replace the BBU.

Severity:

Warning

Action:

(R/M/T/S)

18592

SV RAID: Software error (Task for object cannot be started. The scheduler has disabled the task)

Meaning:

A task could not be started.

Corrective action:

Review the start time of the task. Reconfigure it.

The Patrol Read mode or Auto Learn mode setting may be causing the problem. Recheck the array controller settings.

Severity:

Error

Action:

(R/M/T/S)

18593

SV RAID:%2 Adapter error (SAS topology error) vendor-id=1000 device-id=%d revision=%r

Meaning:

A SAS topology error occurred.

%2: Device name

%d: (Example) 0079

%r: Numerical value (1 to 3 digits)

Corrective action:

Power off the system. Then, confirm that the hard disk, SAS/SATA cable, power supply, and other components are correctly connected. If the error recurs, replace the relevant component on the SAS interface, such as the SAS/SATA cable, expander, and backplane.

Severity:

Error

Action:

(R/M/T/S)

18594

SV RAID:%2 Device error (State change on disk from copyback to failed)

Meaning:

The HDD state changed from copyback to failed.

%2: Device name

Corrective action:

If the hard disk is faulty, replace it.

Severity:

Error

Action:

(R/M/T/S)

18595

SV RAID:%2 Device error (State change on disk from copyback to offline)

Meaning:

The HDD state changed from copyback to offline.

%2: Device name

Corrective action:

If the hard disk is faulty, replace it.

Severity:

Warning

Action:

(R/M/T/S)

18596

SV RAID:%2 Device error (State change on disk from JBOD to failed)

Meaning:

The HDD state changed from JBOD to failed.

%2: Device name

Corrective action:

If the hard disk is faulty, replace it.

Severity:

Error

Action:

(R/M/T/S)

18597

SV RAID:%2 Device error (State change on disk from JBOD to offline)

Meaning:

The HDD state changed from JBOD to offline.

%2: Device name

Corrective action:

If the hard disk is faulty, replace it.

Severity:

Warning

Action:

(R/M/T/S)

18598

SV RAID:%2 Device error (State change by user on disk from copyback to failed)

Meaning:

A user changed the HDD state from copyback to failed.

%2: Device name

Corrective action:

If the hard disk is faulty, replace it.

Severity:

Error

Action:

(R/M/T/S)

18599

SV RAID:%2 Device error (State change by user on disk from copyback to offline)

Meaning:

A user changed the HDD state from copyback to offline.

%2: Device name

Corrective action:

If the hard disk is faulty, replace it.

Severity:

Warning

Action:

(R/M/T/S)

18600

SV RAID:%2 Device error (State change by user on disk from JBOD to failed)

Meaning:

A user changed the HDD state from JBOD to failed.

%2: Device name

Corrective action:

If the hard disk is faulty, replace it.

Severity:

Error

Action:

(R/M/T/S)

18601

SV RAID:%2 Adapter error (Disk security failed to communicate with EKMS) vendor-id=1000 device-id=%d revision=%r

Meaning:

Disk security failed to communicate with the EKMS.

%2: Device name

%d: (Example) 0079

%r: Numerical value (1 to 3 digits)

Corrective action:

This function is not supported. Check the array controller settings.

Severity:

Warning

Action:

(R/M/T/S)

18602

SV RAID:%2 Adapter error (Logical drive secure failed) vendor-id=1000 device-id=%d revision=%r

Meaning:

Logical drive secure failed.

%2: Device name

%d: (Example) 0079

%r: Numerical value (1 to 3 digits)

Corrective action:

This function is not supported. Check the array controller settings.

Severity:

Warning

Action:

(R/M/T/S)

18603

SV RAID:%2 Adapter error (Controller encountered a fatal error and was reset) vendor-id=1000 device-id=%d revision=%r

Meaning:

The controller produced a fatal error and was reset.

%2: Device name

%d: (Example) 0079

%r: Numerical value (1 to 3 digits)

Corrective action:

Replace the array controller.

Severity:

Error

Action:

(R/M/T/S)

18604

SV RAID:%2 Device error (Configuration command could not be committed to disk)

Meaning:

The configuration command was not committed to the disk.

%2: Device name

Corrective action:

If the hard disk is faulty, replace it.

Severity:

Error

Action:

(R/M/T/S)

18605

SV RAID:%2 Device error (Power state change failed on disk)

Meaning:

The disk power state changed from active to stop.

%2: Device name

Corrective action:

If the hard disk is faulty, replace it.

Severity:

Warning

Action:

(R/M/T/S)

18606

SV RAID:%2 Device error (Power state change failed on disk (from stopped to active))

Meaning:

A power state change from stopped to active failed.

%2: Device name

Corrective action:

If the hard disk is faulty, replace it.

Severity:

Warning

Action:

(R/M/T/S)

18607

SV RAID:%2 Device error (Logical drive is not ready)

Meaning:

The logical drive is not in the ready state.

Corrective action:

Check the current state of the logical drive. If it is in the critical state, replace the faulty hard disk, and perform a rebuild.

If it is in the offline state, reconfigure the array. Restore data from a backup.

Severity:

Warning

Action:

(R/M/T/S)

18608

SV RAID:%2 Adapter error (Adapter has been replaced during reboot) vendor-id=1000 device-id=%d revision=%r

Meaning:

The adapter was replaced during a reboot.

%2: Device name

%d: (Example) 0079

%r: Numerical value (1 to 3 digits)

Corrective action:

No action is necessary.

Severity:

Warning

Action:

(R/M/T/S)

18609

SV RAID:%2 Adapter error (Enclosure power supply removed) vendor-id=1000 device-id=%d revision=%r

Meaning:

The enclosure power supply was removed.

%2: Device name

%d: (Example) 0079

%r: Numerical value (1 to 3 digits)

Corrective action:

Check the enclosure status.

Severity:

Warning

Action:

(R/M/T/S)

18610

SV RAID:%2 Adapter error (Enclosure power supply turned off) vendor-id=1000 device-id=%d revision=%r

Meaning:

The enclosure power supply was turned off.

%2: Device name

%d: (Example) 0079

%r: Numerical value (1 to 3 digits)

Corrective action:

Check the enclosure status.

Severity:

Warning

Action:

(R/M/T/S)

18611

SV RAID:%2 Adapter error (Enclosure temperature sensor below warning threshold) vendor-id=1000 device-id=%d revision=%r

Meaning:

The threshold for the temperature sensor in the enclosure is below the warning level.

%2: Device name

%d: (Example) 0079

%r: Numerical value (1 to 3 digits)

Corrective action:

Recheck the server environment temperature. Check the state of the fan. If the error recurs after you rechecked the environment temperature, replace the relevant enclosure component.

Severity:

Warning

Action:

(R/M/T/S)

18612

SV RAID:%2 Adapter error (Enclosure temperature sensor below error threshold) vendor-id=1000 device-id=%d revision=%r

Meaning:

The threshold for the temperature sensor in the enclosure is below the error level.

%2: Device name

%d: (Example) 0079

%r: Numerical value (1 to 3 digits)

Corrective action:

Recheck the server environment temperature. Check the state of the fan. If the error recurs after you rechecked the environment temperature, replace the relevant enclosure component.

Severity:

Error

Action:

(R/M/T/S)

18613

SV RAID:%2 Adapter error (Enclosure temperature sensor above warning threshold) vendor-id=1000 device-id=%d revision=%r

Meaning:

The threshold for the temperature sensor in the enclosure is above the warning level.

%2: Device name

%d: (Example) 0079

%r: Numerical value (1 to 3 digits)

Corrective action:

Recheck the server environment temperature. Check the state of the fan. If the error recurs after you rechecked the environment temperature, replace the relevant enclosure component.

Severity:

Warning

Action:

(R/M/T/S)

18614

SV RAID:%2 Adapter error (Enclosure temperature sensor above error threshold) vendor-id=1000 device-id=%d revision=%r

Meaning:

The threshold for the temperature sensor in the enclosure is above the error level.

%2: Device name

%d: (Example) 0079

%r: Numerical value (1 to 3 digits)

Corrective action:

Recheck the server environment temperature. Check the state of the fan. If the error recurs after you rechecked the environment temperature, replace the relevant enclosure component.

Severity:

Error

Action:

(R/M/T/S)

18615

SV RAID:%2 Device error (Power state change failed on disk (from active to transition))

Meaning:

A power state change from active to transition failed.

%2: Device name

Corrective action:

If the hard disk is faulty, replace it.

Severity:

Warning

Action:

(R/M/T/S)

18616

SV RAID:%2 Device error (Power state change failed on disk (from stopped to transition))

Meaning:

A power state change from stopped to transition failed.

%2: Device name

Corrective action:

If the hard disk is faulty, replace it.

Severity:

Warning

Action:

(R/M/T/S)

18617

SV RAID:%2 Device error (Power state change failed on disk (from transition to active))

Meaning:

A power state change from transition to active failed.

%2: Device name

Corrective action:

If the hard disk is faulty, replace it.

Severity:

Warning

Action:

(R/M/T/S)

18618

SV RAID:%2 Device error (Power state change failed on disk (from transition to stopped))

Meaning:

A power state change from transition to stopped failed.

%2: Device name

Corrective action:

If the hard disk is faulty, replace it.

Severity:

Warning

Action:

(R/M/T/S)

7．2．13．LAN-related messages [Windows]

This section lists the LAN-related messages in Windows.

- e1express-related

This section lists e1express-related messages.

21700

e1000_express:%2 Adapter or Software error (Adapter not found)

Meaning:

The adapter cannot be detected.

%2: Device name

Corrective action:

Reinstall the driver.

Severity:

Warning

Action:

(/ /T/S)

21701

e1000_express:%2 Adapter or Software error (Driver load error)

Meaning:

The driver cannot determine which adapter to load.

%2: Device name

Corrective action:

Reinstall the driver.

Severity:

Error

Action:

(/ /T/S)

21702

e1000_express:%2 Software error (Could not allocate The MAP REGISTERS)

Meaning:

The map register required for operation cannot be allocated.

%2: Device name

Corrective action:

Decrease the number of transmit descriptors in the adapter properties. Perform a restart.

Severity:

Warning

Action:

(/ /T/S)

21703

e1000_express:%2 Software error (Could not assign an interrupt)

Meaning:

An interrupt cannot be allocated.

%2: Device name

Corrective action:

Try again with another PCI slot.

Severity:

Error

Action:

(/ /T/S)

21704

e1000_express:%2 Software error (Could not allocate memory)

Meaning:

Memory required for operation cannot be allocated.

%2: Device name

Corrective action:

Decrease the number of receive descriptors and aggregate buffers in the adapter properties. Perform a restart.

Severity:

Error

Action:

(/ /T/S)

21705

e1000_express:%2 Software error (Could not allocate shared memory)

Meaning:

Shared memory required for operation cannot be allocated.

%2: Device name

Corrective action:

Decrease the number of receive descriptors and aggregate buffers in the adapter properties. Perform a restart.

Severity:

Warning

Action:

(/ /T/S)

21706

e1000_express:%2 Software error (Could not allocate memory)

Meaning:

Memory required for the receive structure cannot be allocated.

%2: Device name

Corrective action:

Decrease the number of receive descriptors in the adapter properties. Perform a restart.

Severity:

Warning

Action:

(/ /T/S)

21707

e1000_express:%2 Software error (Could not allocate memory)

Meaning:

Memory required for the receive descriptors cannot be allocated.

%2: Device name

Corrective action:

Decrease the number of receive descriptors in the adapter properties. Perform a restart.

Severity:

Warning

Action:

(/ /T/S)

21708

e1000_express:%2 Software error (Could not allocate memory)

Meaning:

Memory required for the receive buffer cannot be allocated.

%2: Device name

Corrective action:

Decrease the number of receive descriptors in the adapter properties. Perform a restart.

Severity:

Warning

Action:

(/ /T/S)

21709

e1000_express:%2 Adapter error (Could not establish link) vendor-id=8086 device-id=%d revision=%r

Meaning:

A link cannot be established.

%2: Device name

%d: (Example) 1209

%r: Numerical value (1 to 3 digits)

Corrective action:

- If the unit name is IOB#n-PCIC#n-FUNC#n or PCI_Box#n-PCIC#n-FUNC#n:

>> Check the cable.

- If the unit name is GSPB#n-GbE#n or SB#n-NIC:

  >> Remove and reinsert the GSPB or SB. Then, confirm that the board is correctly mounted. If the same message appears, replace the GSPB or SB.

Severity:

Warning:

Action:

(R/M/T/S)

21710

e1000_express:%2 Adapter error (NOT properly configured) vendor-id=8086 device-id=%d revision=%r

Meaning:

The PRO/1000 adapter is not properly configured in the PCI BIOS.

%2: Device name

%d: (Example) 1209

%r: Numerical value (1 to 8 digits)

Corrective action:

- If the unit name is IOB#n-PCIC#n-FUNC#n or PCI_Box#n-PCIC#n-FUNC#n:

  >> Try again with another PCI slot. Alternatively, replace the adapter.

- If the unit name is GSPB#n-GbE#n or SB#n-NIC:

>> Replace the GSPB or SB.

Severity:

Error

Action:

(R/M/T/S)

21711

e1000_express:%2 Adapter error (Not configured for bus mastering) vendor-id=8086 device-id=%d revision=%r

Meaning:

The adapter is not configured for bus mastering in the PCI BIOS.

%2: Device name

%d: (Example) 1209

%r: Numerical value (1 to 3 digits)

Corrective action:

- If the unit name is IOB#n-PCIC#n-FUNC#n or PCI_Box#n-PCIC#n-FUNC#n:

  >> Mount the adapter in a slot that supports bus masters.

- If the unit name is GSPB#n-GbE#n or SB#n-NIC:

  >> Replace the GSPB or SB.

Severity:

Error

Action:

(R/M/T/S)

21712

e1000_express:%2 Software error (Could not allocate the NDIS receive packets)

Meaning:

The NDIS receive packets required for operation cannot be allocated.

%2: Device name

Corrective action:

Decrease the number of receive descriptors in the adapter properties. Perform a restart.

Severity:

Warning

Action:

(/ /T/S)

21713

e1000_express:%2 Software error (Could not allocate the NDIS receive buffers)

Meaning:

The NDIS receive buffer required for operation cannot be allocated.

%2: Device name

Corrective action:

Decrease the number of receive descriptors in the adapter properties. Perform a restart.

Severity:

Warning

Action:

(/ /T/S)

21714

e1000_express:%2 Software error (unable to assign PCI resources)

Meaning:

The operating system cannot allocate PCI resources.

%2: Device name

Corrective action:

Try again with another PCI slot. Alternatively, check for conflicts with other hardware. Remove the possibly conflicting hardware.

Severity:

Warning

Action:

(/ /T/S)

21715

e1000_express:%2 Software error (unable to claim PCI resources)

Meaning:

The driver cannot request PCI resources for the adapter.

%2: Device name

Corrective action:

Delete any connection that is not a network connection.

Severity:

Warning

Action:

(/ /T/S)

21716

e1000_express:%2 Adapter error (EEPROM error) vendor-id=8086 device-id=%d revision=%r

Meaning:

An error may have occurred in the EEPROM of the adapter.

%2: Device name

%d: (Example) 1209

%r: Numerical value (1 to 3 digits)

Corrective action:

Replace the adapter.

Severity:

Error

Action:

(R/M/T/S)

21717

e1000_express:%2 Software error (Could not start)

Meaning:

The adapter cannot start.

%2: Device name

Corrective action:

Update the driver.

Severity:

Warning

Action:

(/ /T/S)

21718

e1000_express:%2 Software error (MDIX setting conflict with the AutoNeg Settings)

Meaning:

There is an inconsistency between the MDIX and AutoNeg settings.

%2: Device name

Corrective action:

Perform a restart with AutoNeg enabled.

Severity:

Warning

Action:

(/ /T/S)

21719

e1000_express:%2 Adapter error (Could not start) vendor-id=8086 device-id=%d revision=%r

Meaning:

A connection to a supported gigabit network could not be started.

%2: Device name

%d: (Example) 1209

%r: Numerical value (1 to 3 digits)

Corrective action:

Connect the cable to the network device, and perform a restart. Alternatively, disable link-based login, and perform a restart.

Severity:

Warning

Action:

(R/M/T/S)

21720

e1000_express:%2 Software error (Could not allocate all resources)

Meaning:

Not all resources required for a high-priority communication queue can be allocated.

%2: Device name

Corrective action:

Decrease the number of transmit descriptors in the adapter properties. Perform a restart. Alternatively, disable several send queues, and perform a restart.

Severity:

Warning

Action:

(/ /T/S)

21721

e1000_express:%2 Software error (failed to initialize properly)

Meaning:

The driver cannot be initialized properly. It may not be possible to change the adapter settings.

%2: Device name

Corrective action:

Reload the driver.

Severity:

Warning

Action:

(/ /T/S)

21722

e1000_express:%2 Software error (Could not find a supported gigabit network connection)

Meaning:

The gigabit network connection cannot be detected.

%2: Device name

Corrective action:

Reinstall the driver.

Severity:

Warning

Action:

(/ /T/S)

21723

e1000_express:%2 Adapter or Software error (Driver load error)

Meaning:

The driver cannot determine which supported gigabit network connection to load.

%2: Device name

Corrective action:

Reinstall the driver.

Severity:

Warning

Action:

(/ /T/S)

21724

e1000_express:%2 Software error (Could not assign an interrupt)

Meaning:

An interrupt cannot be allocated to a supported gigabit network connection.

%2: Device name

Corrective action:

Try again with another PCI slot.

Severity:

Warning

Action:

(/ /T/S)

21725

e1000_express:%2 Adapter error (NOT properly configured) vendor-id=8086 device-id=%d revision=%r

Meaning:

A gigabit network connection is not properly configured in the PCI BIOS.

%2: Device name

%d: (Example) 1209

%r: Numerical value (1 to 3 digits)

Corrective action:

Try again with another PCI slot. Alternatively, replace the adapter.

Severity:

Error

Action:

(R/M/T/S)

21726

e1000_express:%2 Adapter error (Not configured for bus mastering) vendor-id=8086 device-id=%d revision=%r

Meaning:

A gigabit network connection is not configured for bus mastering in the PCI BIOS.

%2: Device name

%d: (Example) 1209

%r: Numerical value (1 to 3 digits)

Corrective action:

Mount the adapter in a slot that supports bus masters.

Severity:

Error

Action:

(R/M/T/S)

21727

e1000_express:%2 Software error (unable to assign PCI resources)

Meaning:

The operating system cannot allocate PCI resources for a gigabit network connection.

%2: Device name

Corrective action:

Try again with another PCI slot. Alternatively, check for conflicts with other hardware. Remove the possibly conflicting hardware.

Severity:

Warning

Action:

(/ /T/S)

21728

e1000_express:%2 Software error (unable to claim PCI resources)

Meaning:

The driver cannot request PCI resources for a gigabit network connection.

%2: Device name

Corrective action:

Delete any connection that is not a network connection.

Severity:

Warning

Action:

(/ /T/S)

21729

e1000_express:%2 Adapter error (EEPROM error) vendor-id=8086 device-id=%d revision=%r

Meaning:

An error may have occurred in the EEPROM for a gigabit network connection.

%2: Device name

%d: (Example) 1209

%r: Numerical value (1 to 3 digits)

Corrective action:

Replace the adapter.

Severity:

Error

Action:

(R/M/T/S)

21730

e1000_express:%2 Software error (Could not start)

Meaning:

A gigabit network connection cannot be started.

%2: Device name

Corrective action:

Update the driver.

Severity:

Warning

Action:

(/ /T/S)

21800

e1express:%2 Software error (Could not allocate The MAP REGISTERS)

Meaning:

Map registers required for operation cannot be allocated.

%2: Device name

Corrective action:

Decrease the number of transmit descriptors in the adapter properties. Perform a restart.

Severity:

Warning

Action:

(/ /T/S)

21801

e1express:%2 Software error (Could not assign an interrupt)

Meaning:

An interrupt cannot be assigned.

%2: Device name

Corrective action:

Try again with another PCI slot.

Update the driver.

Severity:

Error

Action:

(/ /T/S)

21802

e1express:%2 Adapter error (EEPROM error) vendorid=8086 device-id=%d revision=%r

Meaning:

An error may have occurred in the EEPROM of the adapter.

%2: Device name

%d: (Example) 1209

%r: Numerical value (1 to 3 digits)

Corrective action:

Replace the adapter.

Severity:

Error

Action:

(R/M/T/S)

21803

e1express:%2 Software error (Could not start)

Meaning:

The adapter cannot start.

%2: Device name

Corrective action:

Update the driver.

Severity:

Warning

Action:

(/ /T/S)

21804

e1express:%2 Software error (failed to initialize properly)

Meaning:

The driver could not be properly initialized. It may not be possible to change the adapter settings.

%2: Device name

Corrective action:

Update the driver, and restart the computer.

Severity:

Warning

Action:

(/ /T/S)

21805

e1express:%2 Software error (Could not allocate shared memory)

Meaning:

Shared memory required for operation cannot be allocated.

%2: Device name

Corrective action:

Decrease the number of transmit descriptors and receive descriptors in the adapter properties. Perform a restart.

Severity:

Warning

Action:

(/ /T/S)

21806

e1express:%2 Software error (Could not allocate memory)

Meaning:

Memory required for operation cannot be allocated.

%2: Device name

Corrective action:

Decrease the number of transmit descriptors and receive descriptors in the adapter properties. Perform a restart.

Severity:

Error

Action:

(/ /T/S)

21807

e1express:%2 Software error (Could not allocate resource pool)

Meaning:

The resource pool required for operation cannot be allocated.

%2: Device name

Corrective action:

Decrease the number of transmit descriptors and receive descriptors in the adapter properties. Perform a restart.

Severity:

Error

Action:

(/ /T/S)

21808

e1express:%2 Software error (Could not initialize scatter-gather DMA resources)

Meaning:

The scatter-gather DMA resources required for operation cannot be initialized.

%2: Device name

Corrective action:

Decrease the number of transmit descriptors in the adapter properties. Perform a restart.

Severity:

Error

Action:

(/ /T/S)

21809

e1express:%2 Software error (Could not map the network adapter flash)

Meaning:

Network adapter flash cannot be mapped.

%2: Device name

Corrective action:

Update the driver. Alternatively, try again with another PCI slot.

Severity:

Error

Action:

(/ /T/S)

21810

e1express:%2 Adapter error (The fan on the network adapter has failed) vendor-id=8086 device-id=%d revision=%r

Meaning:

An adapter failure occurred.

%2: Device name

%d: (Example) 1209

%r: Numerical value (1 to 3 digits)

Corrective action:

Turn off the computer, and replace the network adapter.

Severity:

Error

Action:

(R/M/T/S)

21811

e1express:%2 Software error (unsupported SFP+ module)

Meaning:

The driver cannot be read because an unsupported SFP+ module is installed in the adapter.

%2: Device name

Corrective action:

Check whether the SFP+ module installed in the adapter is supported.

If the installed SFP+ module is not supported, replace it.

If the installed SFP+ module is supported, update the driver.

Severity:

Warning

Action:

(/ /T/S)

21812

e1express:%2 Adapter error (MAC address is invalid) vendor-id=8086 device-id=%d revision=%r

Meaning:

MAC address for network afapter is invalide.

Corrective action:

Perform a restart. If the problem persists, turn off the computer, and replace the network adapter.

Severity:

Error

Action:

(R/M/T/S)

21813

e1express:%2 Adapter error (overheated) vendor-id=8086 device-id=%d revision=%r

Meaning:

The network adapter has stopped because of overheating.

Corrective action:

Perform a restart. If the problem persists, turn off the computer, and replace the network adapter.

Severity:

Error

Action:

(R/M/T/S)

- ixgbn-related

This section lists ixgbn-related messages.

21850

ixgbn:%2 Software error (Could not allocate The MAP REGISTERS)

Meaning:

Map registers required for operation cannot be allocated.

%2: Device name

Corrective action:

Decrease the number of transmit descriptors in the adapter properties. Perform a restart.

Severity:

Warning

Action:

(/ /T/S)

21851

ixgbn:%2 Software error (Could not assign an interrupt)

Meaning:

An interrupt cannot be assigned.

%2: Device name

Corrective action:

Try again with another PCI slot.

Update the driver.

Severity:

Error

Action:

(/ /T/S)

21852

ixgbn:%2 Adapter error (EEPROM error) vendorid=8086 device-id=%d revision=%r

Meaning:

An error may have occurred in the EEPROM of the adapter.

%2: Device name

%d: (Example) 1209

%r: Numerical value (1 to 3 digits)

Corrective action:

Replace the adapter.

Severity:

Error

Action:

(R/M/T/S)

21853

ixgbn:%2 Software error (Could not start)

Meaning:

The adapter cannot start.

%2: Device name

Corrective action:

Update the driver.

Severity:

Warning

Action:

(/ /T/S)

21854

ixgbn:%2 Adapter error (MAC address is invalid) vendor-id=8086 device-id=%d revision=%r

Meaning:

The network adapter has an invalid MAC address.

%2: Device name

Corrective action:

Replace the adapter.

Severity:

Error

Action:

(R/M/T/S)

21855

ixgbn:%2 Software error (failed to initialize properly)

Meaning:

The driver could not be properly initialized. It may not be possible to change the adapter settings.

%2: Device name

Corrective action:

Update the driver, and restart the computer.

Severity:

Warning

Action:

(/ /T/S)

21856

ixgbn:%2 Software error (Could not allocate shared memory)

Meaning:

Shared memory required for operation cannot be allocated.

%2: Device name

Corrective action:

Decrease the number of transmit descriptors and receive descriptors in the adapter properties. Perform a restart.

Severity:

Warning

Action:

(/ /T/S)

21857

ixgbn:%2 Software error (Could not allocate memory)

Meaning:

Memory required for operation cannot be allocated.

%2: Device name

Corrective action:

Decrease the number of transmit descriptors and receive descriptors in the adapter properties. Perform a restart.

Severity:

Error

Action:

(/ /T/S)

21858

ixgbn:%2 Software error (Could not allocate resource pool)

Meaning:

The resource pool required for operation cannot be allocated.

%2: Device name

Corrective action:

Decrease the number of transmit descriptors and receive descriptors in the adapter properties. Perform a restart.

Severity:

Error

Action:

(/ /T/S)

21859

ixgbn:%2 Software error (Could not initialize scatter-gather DMA resources)

Meaning:

The scatter-gather DMA resources required for operation cannot be initialized.

%2: Device name

Corrective action:

Decrease the number of transmit descriptors in the adapter properties. Perform a restart.

Severity:

Error

Action:

(/ /T/S)

21860

ixgbn:%2 Software error (Could not map the network adapter flash)

Meaning:

Network adapter flash cannot be mapped.

%2: Device name

Corrective action:

Update the driver. Alternatively, try again with another PCI slot.

Severity:

Error

Action:

(/ /T/S)

21861

ixgbn:%2 Adapter error (The fan on the network adapter has failed) vendor-id=8086 device-id=%d revision=%r

Meaning:

An adapter failure occurred.

%2: Device name

%d: (Example) 1209

%r: Numerical value (1 to 3 digits)

Corrective action:

Turn off the computer, and replace the network adapter.

Severity:

Error

Action:

(R/M/T/S)

21862

ixgbn:%2 Software error (unsupported SFP+ module)

Meaning:

The driver cannot be read because an unsupported SFP+ module is installed in the adapter.

%2: Device name

Corrective action:

Check whether the SFP+ module installed in the adapter is supported.

If the installed SFP+ module is not supported, replace it.

If the installed SFP+ module is supported, update the driver.

Severity:

Warning

Action:

(/ /T/S)

21863

ixgbn:%2 Adapter error (overheated) vendor-id=8086 device-id=%d revision=%r

Meaning:

The network adapter has stopped because of overheating.

%2: Device name

%d: (Example) 1209

%r: Numerical value (1 to 3 digits)

Corrective action:

Perform a restart. If the problem persists, turn off the computer, and replace the network adapter.

Severity:

Error

Action:

(R/M/T/S)

7. 2. 14. Fibre Channel messages [Windows]

This section lists the Fibre Channel messages in Windows.

22000

elxstor:%1 Adapter error (Severe Error = %h) vendor-id=10DF device-id=%d revision=%r

Meaning:

A driver, firmware, or HBA error occurred.

%1: Device name

%h: Error code (HEX)

%d: (Example) F980

%r: Numerical value (1 to 3 digits)

Corrective action:

Update or reinstall the driver. If the problem persists, replace the adapter. For the error codes, see the Emulex storport Miniport Driver manual.

Severity:

Error

Action:

(R/M/T/S)

22001

elxstor:%1 Software error (MalFunction Error = %h)

Meaning:

A system or user operation error occurred.

%1: Device name

%h: Error code (HEX)

Corrective action:

This does not affect operation. If the error occurs frequently, contact your sales representative or a field engineer.

For the error codes, see the Emulex storport Miniport Driver manual.

Severity:

Warning

Action:

(/ /T/S)

22002

elxstor:%1 Software error (Command Error = %h)

Meaning:

A command error occurred.

%1: Device name

%h: Error code (HEX)

Corrective action:

This does not affect operation. If the error occurs frequently, contact your sales representative or a field engineer.

For the error codes, see the Emulex storport Miniport Driver manual.

Severity:

Warning

Action:

(/ /T/S)

7．2．15．SCSI/SAS messages [Windows]

This section lists the SCSI/SAS-related messages in Windows.

- SCSI-related

This section lists SCSI-related messages.

23000

symmpi: Adapter error (Controller Error occurred)

Meaning:

A driver detection error occurred.

Corrective action:

Update or reinstall the SAS driver. If the problem persists, replace the adapter.

Severity:

Error

Action:

(R/M/T/S)

23001

symmpi: Adapter error (timeout/illegal interrupt occurred)

Meaning:

A time-out or abnormal interrupt was detected.

Corrective action:

Update or reinstall the SAS driver. If the problem persists, replace the adapter.

Severity:

Warning

Action:

(R/M/T/S)

23100

lsi_scsi: Adapter error (Controller Error occurred)

Meaning:

The driver detected an error.

Corrective action:

Update or reinstall the SAS driver. If the problem persists, replace the adapter.

Severity:

Error

Action:

(R/M/T/S)

23101

lsi_scsi: Adapter error (timeout/illegal interrupt occurred)

Meaning:

A time-out or abnormal interrupt was detected.

Corrective action:

Update or reinstall the SAS driver. If the problem persists, replace the adapter.

Severity:

Warning

Action:

(R/M/T/S)

- SAS-related

This section lists SAS-related messages.

23200

lsi_sas: Adapter error (Controller Error occurred)

Meaning:

The SAS driver detected an error.

Corrective action:

A driver, adapter, or HDD error may have occurred. Contact your sales representative or a field engineer.

Severity:

Error

Action:

(R/M/T/S)

23201

lsi_sas: Adapter error (timeout/illegal interrupt occurred)

Meaning:

The SAS driver detected a time-out or abnormal interrupt.

Corrective action:

A driver, adapter, or HDD error may have occurred. Contact your sales representative or a field engineer.

Severity:

Warning

Action:

(R/M/T/S)

7.2.16. Disk messages [Windows]

This section lists the disk messages in Windows.

24000

disk:\Device* Device error (The device; \Device*; did not respond within the timeout period.) vendor=%v model=%m serial-no=%ser

Meaning:

A response time-out occurred.

%v: (Example) FUJITSU

%m: (Example) MAP3367NC

%ser: (Example) 01234567

Corrective action:

Confirm that the device and adapter are correctly connected. If there is no problem with connections, collect the data for investigation (e.g., QSS), and contact your sales representative or a field engineer.

Severity:

Error

Action:

(R/M/T/S)

24001

disk:\Device* Device error (The driver detected a controller error on \Device*) vendor=%v model=%m serial-no=%ser

Meaning:

An error occurred between the controller and the device.

%v: (Example) FUJITSU

%m: (Example) MAP3367NC

%ser: (Example) 01234567

Corrective action:

Confirm that the device and adapter are correctly connected. If there is no problem with connections, collect the data for investigation (e.g., QSS), and contact your sales representative or a field engineer.

Severity:

Error

Action:

(R/M/T/S)

24002

disk:\Device* Device error (The device; \Device*; is not ready for access yet.) vendor=%v model=%m serial-no=%ser

Meaning:

The device became inaccessible.

%v: (Example) FUJITSU

%m: (Example) MAP3367NC

%ser: (Example) 01234567

Corrective action:

Confirm that the device and adapter are correctly connected. If there is no problem with connections, collect the data for investigation (e.g., QSS), and contact your sales representative or a field engineer.

Severity:

Error

Action:

(R/M/T/S)

24003

disk:\Device* Device error (The device; \Device*; has a bad block.) vendor=%v model=%m serial-no=%ser

Meaning:

The device has a bad block.

%v: (Example) FUJITSU

%m: (Example) MAP3367NC

%ser: (Example) 01234567

Corrective action:

Replace the device.

Severity:

Error

Action:

(R/M/T/S)

7．2．17．ETERNUS multipath driver messages [Windows]

This section lists ETERNUS multipath driver messages.

25000

MPD: Adapter or Device or FC-Network error (MPD detected event)

Meaning:

The multipath driver detected an I/O or FC multipath configuration error.

Corrective action:

Take corrective action according to the messages that the multipath driver outputs and the instructions in the *ETERNUS Multipath Driver User's Guide*.

Severity:

Warning

Action:

(/ /T/S)

25001

MPD:\Device\ScsiPort%2 Adapter or FC-Network error (An input/output error has occurred) vendor-id=10DF device-id=%d revision=%r

Meaning:

An I/O error was detected on \Device\ScsiPortP.

%2: Scsi number

%d: (Example) F980

%r: Numerical value (1 to 3 digits)

Corrective action:

Check the device indicated by \Device\ScsiPortP.

If the operating system is Windows Server 2003, identify the faulty part according to the "Procedure for Identifying the Faulty Fibre Channel (FC) Adapter Part."

Severity:

Error

Action:

(R/M/T/S)

25002

MPD:\Device\ScsiPort%2 Adapter or FC-Network error (An input/output error has occurred) vendor-id=10DF device-id=%d revision=%r

Meaning:

An I/O error was detected on \Device\ScsiPortP (PathId=B, TargetId=T).

%2: Scsi number

%d: (Example) F980

%r: Numerical value (1 to 3 digits)

Corrective action:

Check the device indicated by \Device\ScsiPortP(PathId=B, TargetId=T).

If the operating system is Windows Server 2003, identify the faulty part according to the "Procedure for Identifying the Faulty Fibre Channel (FC) Adapter Part."

Severity:

Error

Action:

(R/M/T/S)

25003

MPD:\Device\ScsiPort%3 Adapter or FC-Network error (Some of the paths could not be detected) vendor-id=10DF device-id=%d revision=%r

Meaning:

Multipath operation could not be started for the device indicated by \Device\ScsiPortP(PathId=B, TargetId=T) because of an unplugged cable or device failure.

%3: Scsi number

%d: (Example) F980

%r: Numerical value (1 to 3 digits)

Corrective action:

Check the device indicated by \Device\ScsiPortP(PathId=B, TargetId=T).

If the operating system is Windows Server 2003, identify the faulty part according to the "Procedure for Identifying the Faulty Fibre Channel (FC) Adapter Part."

Severity:

Error

Action:

(R/M/T/S)

25004

MPD:\Device\ScsiPort%3 Adapter or FC-Network error (device was removed) vendor-id=10DF device-id=%d revision=%r

Meaning:

\Device\ScsiPortP(PathId=B, TargetId=T) became unavailable because of an unplugged cable or device failure.

%3: Scsi number

%d: (Example) F980

%r: Numerical value (1 to 3 digits)

Corrective action:

Check the device indicated by \Device\ScsiPortP(PathId=B, TargetId=T).

If the operating system is Windows Server 2003, identify the faulty part according to the "Procedure for Identifying the Faulty Fibre Channel (FC) Adapter Part."

Severity:

Error

Action:

(R/M/T/S)

25005

MPD:\Device\ScsiPort%2 Adapter or FC-Network error (An input/output fault) vendor-id=10DF device-id=%d revision=%r

Meaning:

The path was isolated.

%2: Scsi number

%d: (Example) F980

%r: Numerical value (1 to 3 digits)

Corrective action:

Check the device indicated by \Device\ScsiPortP(PathId=B, TargetId=T).

If the operating system is Windows Server 2003, identify the faulty part according to the "Procedure for Identifying the Faulty Fibre Channel (FC) Adapter Part."

Severity:

Error

Action:

(R/M/T/S)

7.2.18. GLS messages [Windows]

This section lists Windows GLS-related messages.

27000

GLS: Software error (The physical adapter linked down)

Meaning:

A linkdown event occurred on the physical adapter.

Corrective action:

Confirm that the cables for the physical adapter are connected. If the cables are connected, contact your sales representative or a field engineer.

Severity:

Warning

Action:

(/ /T/S)

27001

GLS: Software error (Failed to communicate with IP addresses to be monitored)

Meaning:

Communication with the ping monitoring target at its IP address failed.

Corrective action:

Examine the network device and NIC at the destination for any errors.

Severity:

Warning

Action:

(/ /T/S)

27002

GLS: Software error (A failure occurred in all adapters)

Meaning:

A failure occurred in all adapters.

Corrective action:

Confirm that the cables for the physical adapters bundled with a virtual adapter are connected.

Severity:

Error

Action:

(/ /T/S)

7.2.19. ServerView RAID-related messages [Windows]

This section lists ServerView RAID-related messages.

28500

SV RAID:%2 Adapter error (BBU temperature out of range) vendor-id=1000/1734 device-id=%d revision=%r

Meaning:

A temperature detected by the temperature sensor on the battery exceeded the measurable range.

%2: Device name

%d: (Example) 0060/10F9 (device-id/sub device-id)

%r: Numerical value (1 to 3 digits)

Corrective action:

Check the fan status in ServerView. If a fan failure occurred, take corrective action for the target unit.

If no fan failure occurred, recheck the environment temperature. If the error recurs after you rechecked the environment temperature, replace the BBU.

Severity:

Error

Action:

(R/M/T/S)

28501

SV RAID:%2 Adapter error (BBU temperature unstable) vendor-id=1000/1734 device-id=%d revision=%r

Meaning:

The battery temperature is unstable.

%2: Device name

%d: (Example) 0060/10F9 (device-id/sub device-id)

%r: Numerical value (1 to 3 digits)

Corrective action:

Check the fan status in ServerView. If a fan failure occurred, take corrective action for the target unit.

If no fan failure occurred, recheck the environment temperature. If the error recurs after you rechecked the environment temperature, replace the BBU.

Severity:

Error

Action:

(R/M/T/S)

28502

SV RAID:%2 Adapter error (BBU temperature above threshold) vendor-id=1000/1734 device-id=%d revision=%r

Meaning:

A temperature detected by the temperature sensor on the battery exceeded the upper threshold.

%2: Device name

%d: (Example) 0060/10F9 (device-id/sub device-id)

%r: Numerical value (1 to 3 digits)

Corrective action:

Check the fan status in ServerView. If a fan failure occurred, take corrective action for the target unit.

If no fan failure occurred, recheck the environment temperature. If the error recurs after you rechecked the environment temperature, replace the BBU.

Severity:

Error

Action:

(R/M/T/S)

28503

SV RAID:%2 Adapter error (BBU voltage out of range) vendor-id=1000/1734 device-id=%d revision=%r

Meaning:

A voltage detected by the voltage sensor on the battery exceeded the measurable range.

%2: Device name

%d: (Example) 0060/10F9 (device-id/sub device-id)

%r: Numerical value (1 to 3 digits)

Corrective action:

Replace the BBU. If the error recurs, replace the possibly faulty component of the SAS interface system.

Severity:

Error

Action:

(R/M/T/S)

28504

SV RAID:%2 Adapter error (BBU voltage unstable) vendor-id=1000/1734 device-id=%d revision=%r

Meaning:

The battery voltage is unstable.

%2: Device name

%d: (Example) 0060/10F9 (device-id/sub device-id)

%r: Numerical value (1 to 3 digits)

Corrective action:

Replace the BBU. If the error recurs, replace the possibly faulty component of the SAS interface system.

Severity:

Error

Action:

(R/M/T/S)

28505

SV RAID:%2 Adapter error (BBU communication error) vendor-id=1000/1734 device-id=%d revision=%r

Meaning:

An error occurred in communication with the BBU.

%2: Device name

%d: (Example) 0060/10F9 (device-id/sub device-id)

%r: Numerical value (1 to 3 digits)

Corrective action:

Replace the BBU. If the error recurs, replace the possibly faulty component of the SAS interface system.

Severity:

Error

Action:

(R/M/T/S)

28506

SV RAID:%2 Adapter error (BBU failed) vendor-id=1000/1734 device-id=%d revision=%r

Meaning:

A problem occurred in the battery.

%2: Device name

%d: (Example) 0060/10F9 (device-id/sub device-id)

%r: Numerical value (1 to 3 digits)

Corrective action:

Replace the BBU.

Severity:

Error

Action:

(R/M/T/S)

28507

SV RAID:%2 Adapter error (BBU fast charging failed) vendor-id=1000/1734 device-id=%d revision=%r

Meaning:

Fast charging of the battery failed.

%2: Device name

%d: (Example) 0060/10F9 (device-id/sub device-id)

%r: Numerical value (1 to 3 digits)

Corrective action:

Replace the BBU.

Severity:

Error

Action:

(R/M/T/S)

28508

SV RAID:%2 Adapter error (BBU charge count exceeded) vendor-id=1000/1734 device-id=%d revision=%r

Meaning:

The battery charge count exceeded the upper limit.

%2: Device name

%d: (Example) 0060/10F9 (device-id/sub device-id)

%r: Numerical value (1 to 3 digits)

Corrective action:

Replace the BBU.

Severity:

Warning

Action:

(R/M/T/S)

28509

SV RAID:%2 Device error (Rebuild on disk failed)

Meaning:

The rebuild attempt on the HDD failed.

%2: Device name

Corrective action:

If the target logical drive is degraded, replace the HDD, and perform a rebuild. If the target logical drive is offline, take corrective action according to the multi-dead recovery procedure.

Severity:

Error

Action:

(R/M/T/S)

28510

SV RAID:%2 Device error (Rebuild failed on logical drive)

Meaning:

The rebuild on the logical drive failed.

%2: Device name

Corrective action:

If the target logical drive is degraded, replace the HDD, and perform a rebuild. If the target logical drive is offline, take corrective action according to the multi-dead recovery procedure.

Severity:

Error

Action:

(R/M/T/S)

28511

SV RAID:%2 Device error (Migration failed on logical drive)

Meaning:

Logical drive capacity expansion failed.

%2: Device name

Corrective action:

Reconfigure the array. Restore data from a backup.

Severity:

Error

Action:

(R/M/T/S)

28512

SV RAID:%2 Device error (Migration aborted on logical drive)

Meaning:

Logical drive capacity expansion was interrupted.

%2: Device name

Corrective action:

Reconfigure the array. Restore data from a backup.

Severity:

Warning

Action:

(R/M/T/S)

28513

SV RAID:%2 Device error (Logical drive degraded)

Meaning:

The logical drive entered the degraded state.

%2: Device name

Corrective action:

Replace the faulty HDD. Perform a rebuild.

Severity:

Error

Action:

(R/M/T/S)

28514

SV RAID:%2 Device error (Logical drive failed)

Meaning:

The logical drive entered the offline state.

%2: Device name

Corrective action:

Take corrective action according to the multi-dead recovery procedure.

Severity:

Error

Action:

(R/M/T/S)

28515

SV RAID:%2 Adapter error (BBU voltage problem detected) vendor-id=1000/1734 device-id=%d revision=%r

Meaning:

An abnormal battery voltage was detected.

%2: Device name

%d: (Example) 0060/10F9 (device-id/sub device-id)

%r: Numerical value (1 to 3 digits)

Corrective action:

Replace the BBU. If the error recurs, replace the possibly faulty component of the SAS interface system.

Severity:

Error

Action:

(R/M/T/S)

28516

SV RAID:%2 Adapter error (BBU temperature problem detected) vendor-id=1000/1734 device-id=%d revision=%r

Meaning:

An abnormal battery temperature was detected.

%2: Device name

%d: (Example) 0060/10F9 (device-id/sub device-id)

%r: Numerical value (1 to 3 digits)

Corrective action:

Check the fan status in ServerView. If a fan failure occurred, take corrective action for the target unit. If no fan failure occurred, recheck the environment temperature. If the error recurs after you rechecked the environment temperature, replace the BBU.

Severity:

Error

Action:

(R/M/T/S)

28517

SV RAID:%2 Adapter error (BBU failed) vendor-id=1000/1734 device-id=%d revision=%r

Meaning:

A battery failure occurred.

%2: Device name

%d: (Example) 0060/10F9 (device-id/sub device-id)

%r: Numerical value (1 to 3 digits)

Corrective action:

Replace the BBU.

Severity:

Error

Action:

(R/M/T/S)

28518

SV RAID:%2 Adapter error (Fatal firmware error) vendor-id=1000 device-id=%d revision=%r

Meaning:

A fatal error occurred in firmware.

%2: Device name

%d: (Example) 0079

%r: Numerical value (1 to 3 digits)

Corrective action:

Replace the possibly faulty component of the SAS interface system.

Severity:

Error

Action:

(R/M/T/S)

28519

SV RAID:%2 Adapter error (Multi-bit ECC error) vendor-id=1000 device-id=%d revision=%r

Meaning:

A multi-bit error was detected.

%2: Device name

%d: (Example) 0079

%r: Numerical value (1 to 3 digits)

Corrective action:

Replace the array controller.

Severity:

Error

Action:

(R/M/T/S)

28520

SV RAID:%2 Adapter error (Single-bit ECC error) vendor-id=1000 device-id=%d revision=%r

Meaning:

A single-bit error was detected.

%2: Device name

%d: (Example) 0079

%r: Numerical value (1 to 3 digits)

Corrective action:

Replace the array controller.

Severity:

Error

Action:

(R/M/T/S)

28521

SV RAID:%2 Adapter error (Not enough adapter memory) vendor-id=1000/1734 device-id=%d revision=%r

Meaning:

The memory of the controller is insufficient.

%2: Device name

%d: (Example) 0060/10F9 (device-id/sub device-id)

%r: Numerical value (1 to 3 digits)

Corrective action:

Replace the possibly faulty component of the SAS interface system.

Severity:

Error

Action:

(R/M/T/S)

28522

SV RAID:%2 Device error (Resume migration of logical drive failed due to Configuration Mismatch)

Meaning:

The resumption of capacity expansion failed because of a configuration mismatch.

%2: Device name

Corrective action:

Reconfigure the array. Restore data from a backup.

Severity:

Error

Action:

(R/M/T/S)

28523

SV RAID:%2 Device error (Hot spare S.M.A.R.T. polling failed on disk)

Meaning:

S.M.A.R.T. polling to a spare disk failed.

%2: Device name

Corrective action:

Replace the target HDD. Then, configure settings for the spare disk.

Severity:

Error

Action:

(R/M/T/S)

28524

SV RAID:%2 Device error (Predictive failure)

Meaning:

An HDD failure is predicted.

%2: Device name

Corrective action:

Perform preventive replacement of the HDD.

Severity:

Error

Action:

(R/M/T/S)

28525

SV RAID:%2 Adapter error (BBU needs to be replaced - SOH bad) vendor-id=1000/1734 device-id=%d revision=%r

Meaning:

The BBU must be replaced.

%2: Device name

%d: (Example) 0060/10F9 (device-id/sub device-id)

%r: Numerical value (1 to 3 digits)

Corrective action:

Replace the BBU.

Severity:

Error

Action:

(R/M/T/S)

28526

SV RAID:%2 Adapter error (BBU removed) vendor-id=1000 device-id=%d revision=%r

Meaning:

The BBU was removed.

%2: Device name

%d: (Example) 0079

%r: Numerical value (1 to 3 digits)

Corrective action:

Wait for battery charge to be completed. If the problem persists even after the completion of charge, replace the BBU.

Severity:

Warning

Action:

(R/M/T/S)

28527

SV RAID:%2 Adapter error (Enclosure communication lost) vendor-id=1000/1734 device-id=%d revision=%r

Meaning:

The connection with the enclosure was terminated.

%2: Device name

%d: (Example) 0060/10F9 (device-id/sub device-id)

%r: Numerical value (1 to 3 digits)

Corrective action:

Review the system connection configuration. If the error recurs, replace the possibly faulty component of the SAS interface system.

Severity:

Warning

Action:

(R/M/T/S)

28528

SV RAID:%2 Adapter error (Enclosure not responding) vendor-id=1000/1734 device-id=%d revision=%r

Meaning:

The enclosure has not responded.

%2: Device name

%d: (Example) 0060/10F9 (device-id/sub device-id)

%r: Numerical value (1 to 3 digits)

Corrective action:

Review the system connection configuration. If the error recurs, replace the possibly faulty component of the SAS interface system.

Severity:

Warning

Action:

(R/M/T/S)

28529

SV RAID:%2 Adapter error (SAS/SATA mixing not supported in enclosure) vendor-id=1000/1734 device-id=%d revision=%r

Meaning:

The enclosure does not support the mixture of SAS and SATA.

%2: Device name

%d: (Example) 0060/10F9 (device-id/sub device-id)

%r: Numerical value (1 to 3 digits)

Corrective action:

Replace the device with the correct HDD. (SATA HDDs are not supported.)

Severity:

Warning

Action:

(R/M/T/S)

28530

SV RAID:%2 Device error (Bad block table on disk is 80% full)

Meaning:

More than 80% of the bad block table is being used.

%2: Device name

Corrective action:

Many defective blocks cannot be recovered. If a file cannot be read, restore the file from a backup.

Severity:

Info

Action:

(R/M/T/S)

28531

SV RAID:%2 Device error (Bad block table on disk is full; unable to log Block)

Meaning:

The bad block table is full.

%2: Device name

Corrective action:

Many defective blocks cannot be recovered. If a file cannot be read, restore the file from a backup.

Severity:

Error

Action:

(R/M/T/S)

28532

SV RAID:%2 Adapter error (BBU/charger problems detected; SOH bad) vendor-id=1000/1734 device-id=%d revision=%r

Meaning:

A BBU charger problem was detected.

%2: Device name

%d: (Example) 0060/10F9 (device-id/sub device-id)

%r: Numerical value (1 to 3 digits)

Corrective action:

Replace the BBU. If the error recurs, replace the possibly faulty component of the SAS interface system.

Severity:

Warning

Action:

(R/M/T/S)

28533

SV RAID:%2 Adapter error (Single-bit ECC error; warning threshold exceeded) vendor-id=1000 device-id=%d revision=%r

Meaning:

A single-bit error was detected.

%2: Device name

%d: (Example) 0079

%r: Numerical value (1 to 3 digits)

Corrective action:

Replace the array controller.

Severity:

Warning

Action:

(R/M/T/S)

28534

SV RAID:%2 Adapter error (Single-bit ECC error; critical threshold exceeded) vendor-id=1000 device-id=%d revision=%r

Meaning:

A single-bit error was detected.

%2: Device name

%d: (Example) 0079

%r: Numerical value (1 to 3 digits)

Corrective action:

Replace the array controller.

Severity:

Warning

Action:

(R/M/T/S)

28535

SV RAID:%2 Adapter error (Single-bit ECC error; further reporting disabled) vendor-id=1000 device-id=%d revision=%r

Meaning:

A single-bit error was detected.

%2: Device name

%d: (Example) 0079

%r: Numerical value (1 to 3 digits)

Corrective action:

Replace the array controller. If the error recurs, replace the possibly faulty component of the SAS interface system.

Severity:

Info

Action:

(R/M/T/S)

28536

SV RAID:%2 Adapter error (Previous configuration completely missing at boot) vendor-id=1000/1734 device-id=%d revision=%r

Meaning:

The configuration could not be found at startup.

%2: Device name

%d: (Example) 0060/10F9 (device-id/sub device-id)

%r: Numerical value (1 to 3 digits)

Corrective action:

Power off the system. Then, confirm that the HDD, cable, power supply, and other components are correctly connected. If the error recurs, replace the possibly faulty component of the SAS interface system.

Severity:

Warning

Action:

(R/M/T/S)

28537

SV RAID:%2 Device error (Logical drive partially degraded)

Meaning:

The logical drive entered the degraded state.

%2: Device name

Corrective action:

Replace the degraded HDD. Perform a rebuild.

Severity:

Error

Action:

(R/M/T/S)

28538

SV RAID:%2 Device error (Disks missing)

Meaning:

The HDD does not exist.

%2: Device name

Corrective action:

Replace the dead HDD. Perform a rebuild.

Severity:

Warning

Action:

(R/M/T/S)

28539

SV RAID:%2 Device error (State change on logical drive from operational to degraded)

Meaning:

The logical drive state changed from online to degraded.

%2: Device name

Corrective action:

Replace the degraded HDD. Perform a rebuild.

Severity:

Error

Action:

(R/M/T/S)

28540

SV RAID:%2 Device error (State change on logical drive from operational to partially degraded)

Meaning:

The logical drive state changed from online to degraded.

%2: Device name

Corrective action:

Replace the degraded HDD. Perform a rebuild.

Severity:

Error

Action:

(R/M/T/S)

28541

SV RAID:%2 Device error (State change on logical drive from operational to failed)

Meaning:

The logical drive state changed from online to offline.

%2: Device name

Corrective action:

Take corrective action according to the multi-dead recovery procedure.

Severity:

Error

Action:

(R/M/T/S)

28542

SV RAID:%2 Device error (State change on logical drive from degraded to degraded)

Meaning:

The logical drive entered the degraded state.

%2: Device name

Corrective action:

Replace the degraded HDD. Perform a rebuild.

Severity:

Error

Action:

(R/M/T/S)

28543

SV RAID:%2 Device error (State change on logical drive from degraded to partially degraded)

Meaning:

The logical drive entered the degraded state.

%2: Device name

Corrective action:

Replace the degraded HDD. Perform a rebuild.

Severity:

Error

Action:

(R/M/T/S)

28544

SV RAID:%2 Device error (State change on logical drive from degraded to failed)

Meaning:

The logical drive state changed from degraded to offline.

%2: Device name

Corrective action:

Take corrective action according to the multi-dead recovery procedure.

Severity:

Error

Action:

(R/M/T/S)

28545

SV RAID:%2 Device error (State change on logical drive from partially degraded to degraded)

Meaning:

The logical drive entered the degraded state.

%2: Device name

Corrective action:

Replace the degraded HDD. Perform a rebuild.

Severity:

Error

Action:

(R/M/T/S)

28546

SV RAID:%2 Device error (State change on logical drive from partially degraded to partially degraded)

Meaning:

The logical drive entered the degraded state.

%2: Device name

Corrective action:

Replace the degraded HDD. Perform a rebuild.

Severity:

Error

Action:

(R/M/T/S)

28547

SV RAID:%2 Device error (State change on logical drive from partially degraded to failed)

Meaning:

The logical drive state changed from degraded to offline.

%2: Device name

Corrective action:

Take corrective action according to the multi-dead recovery procedure.

Severity:

Error

Action:

(R/M/T/S)

28548

SV RAID:%2 Device error (State change on logical drive from failed to failed)

Meaning:

The logical drive entered the offline state.

%2: Device name

Corrective action:

Take corrective action according to the multi-dead recovery procedure.

Severity:

Error

Action:

(R/M/T/S)

28549

SV RAID:%2 Device error (State change by user on disk from failed to failed)

Meaning:

The HDD entered the failed state.

%2: Device name

Corrective action:

Replace the failed HDD. Perform a rebuild.

Severity:

Error

Action:

(R/M/T/S)

28550

SV RAID:%2 Device error (State change by user on disk from hotspare to failed)

Meaning:

The HDD state changed from HotSpare to failed.

%2: Device name

Corrective action:

Replace the failed HDD. Set HotSpare.

Severity:

Error

Action:

(R/M/T/S)

28551

SV RAID:%2 Device error (State change by user on disk from rebuilding to failed)

Meaning:

The HDD state changed from rebuilding to failed.

%2: Device name

Corrective action:

Replace the failed HDD. Perform a rebuild.

Severity:

Error

Action:

(R/M/T/S)

28552

SV RAID:%2 Device error (State change by user on disk from operational to failed)

Meaning:

The HDD state changed from operational to failed.

%2: Device name

Corrective action:

Replace the failed HDD. Perform a rebuild.

Severity:

Error

Action:

(R/M/T/S)

28553

SV RAID:%2 Device error (State change on disk from failed to failed)

Meaning:

The HDD entered the failed state.

%2: Device name

Corrective action:

Replace the failed HDD. Perform a rebuild.

Severity:

Error

Action:

(R/M/T/S)

28554

SV RAID:%2 Device error (State change on disk from hot spare to failed)

Meaning:

Replace the dead HDD. Set HotSpare.

%2: Device name

Corrective action:

Replace the dead HDD. Set HotSpare.

Severity:

Error

Action:

(R/M/T/S)

28555

SV RAID:%2 Device error (State change on disk from rebuilding to failed)

Meaning:

Replace the dead HDD. Perform a rebuild.

%2: Device name

Corrective action:

Replace the dead HDD. Perform a rebuild.

Severity:

Error

Action:

(R/M/T/S)

28556

SV RAID:%2 Device error (State change on disk from operational to failed)

Meaning:

The HDD state changed from operational to failed.

%2: Device name

Corrective action:

Replace the failed HDD. Perform a rebuild.

Severity:

Error

Action:

(R/M/T/S)

28557

SV RAID:%2 Device error (Disk missing after reboot)

Meaning:

The HDD could not be found at restart.

%2: Device name

Corrective action:

Replace the HDD. Perform a rebuild. If the Fault LED is not on, a SAS interface system failure may have occurred. Replace the possibly faulty component of the SAS interface system.

However, this event may have occurred at operating system startup after the optional card or the hard disk of the server where this product is installed was added or removed. In such cases, use ServerView RAID Manager to check the status of the array. There is no problem if the array is recognized as being in the normal state.

Severity:

Error

Action:

(R/M/T/S)

28558

SV RAID:%2 Adapter error (Logical drive missing after reboot) vendor-id=1000 device-id=%d revision=%r

Meaning:

The logical drive could not be found at restart.

%2: Device name

%d: (Example) 0079

%r: Numerical value (1 to 3 digits)

Corrective action:

This event may have occurred at operating system startup after the optional card or the hard disk of the server where this product is installed was added or removed. In such cases, use ServerView RAID Manager to check the status of the array. There is no problem if the array is recognized as being in the normal state.

Also, if the error occurred after a change to the array configuration, no action is necessary. If the error occurred during normal operation or after maintenance work, power off the system, and confirm that the HDD is correctly connected. If the array configuration is not recognized after startup, perform a restart so that it can be recognized.

Severity:

Error

Action:

(R/M/T/S)

28559

SV RAID:%2 Device error (State change by user on disk from hot spare to offline)

Meaning:

The HDD state changed from HotSpare to offline.

%2: Device name

Corrective action:

Replace the offline HDD. Perform a rebuild. For multi-dead, take corrective action according to the multi-dead recovery procedure.

(HotSpare is not supported.)

Severity:

Error

Action:

(R/M/T/S)

28560

SV RAID:%2 Device error (State change by user on disk from offline to failed)

Meaning:

The HDD state changed from offline to failed.

%2: Device name

Corrective action:

Replace the failed HDD. Perform a rebuild.

Severity:

Error

Action:

(R/M/T/S)

28561

SV RAID:%2 Device error (State change by user on disk from operational to offline)

Meaning:

The state changed from degraded to operational and then to offline.

%2: Device name

Corrective action:

Replace the offline HDD. Perform a rebuild.

Severity:

Warning

Action:

(R/M/T/S)

28562

SV RAID:%2 Device error (State change by user on disk from rebuilding to offline)

Meaning:

The HDD state changed from rebuilding to offline.

%2: Device name

Corrective action:

Replace the offline HDD. Perform a rebuild. For multi-dead, take corrective action according to the multi-dead recovery procedure.

Severity:

Warning

Action:

(R/M/T/S)

28563

SV RAID:%2 Device error (State change on disk from hot spare to offline)

Meaning:

The HDD state changed from HotSpare to offline.

%2: Device name

Corrective action:

Replace the offline HDD. Perform a rebuild. For multi-dead, take corrective action according to the multi-dead recovery procedure.

(HotSpare is not supported.)

Severity:

Warning

Action:

(R/M/T/S)

28564

SV RAID:%2 Device error (State change on disk from offline to failed)

Meaning:

The HDD state changed from offline to failed.

%2: Device name

Corrective action:

Replace the failed HDD. Perform a rebuild.

Severity:

Error

Action:

(R/M/T/S)

28565

SV RAID:%2 Device error (State change on disk from operational to offline)

Meaning:

The HDD state changed from operational to offline.

%2: Device name

Corrective action:

Replace the failed HDD. Perform a rebuild.

Severity:

Error

Action:

(R/M/T/S)

28566

SV RAID:%2 Device error (State change on disk from rebuilding to offline)

Meaning:

The HDD state changed from rebuilding to offline.

%2: Device name

Corrective action:

Replace the offline HDD. Perform a rebuild. For multi-dead, take corrective action according to the multi-dead recovery procedure.

Severity:

Warning

Action:

(R/M/T/S)

28567

SV RAID:%2 Adapter error (SAS port lost link) vendor-id=1000/1734 device-id=%d revision=%r

Meaning:

The SAS link was terminated.

%2: Device name

%d: (Example) 0060/10F9 (device-id/sub device-id)

%r: Numerical value (1 to 3 digits)

Corrective action:

Review the system connection configuration. If the error recurs, replace the possibly faulty component of the SAS interface system.

Severity:

Error

Action:

(R/M/T/S)

28568

SV RAID:%2 Adapter error (Adapter missing after reboot) vendor-id=1000/1734 device-id=%d revision=%r

Meaning:

After the restart, the SAS array controller card could not be found.

%2: Device name

%d: (Example) 0060/10F9 (device-id/sub device-id)

%r: Numerical value (1 to 3 digits)

Corrective action:

Confirm the Enable (RAID)/Disable (NATIVE) setting of the SAS array controller card in the system BIOS.

Severity:

Error

Action:

(R/M/T/S)

28569

SV RAID:%2 Adapter error (Adapter needs replacement; faulty IOP detected) vendor-id=1000/1734 device-id=%d revision=%r

Meaning:

An error was detected in the IO processor of the controller.

%2: Device name

%d: (Example) 0060/10F9 (device-id/sub device-id)

%r: Numerical value (1 to 3 digits)

Corrective action:

Review the system connection configuration. If the problem persists, replace the controller.

Severity:

Error

Action:

(R/M/T/S)

28570

SV RAID:%2 Device error (Microcode update timeout on disk)

Meaning:

The HDD firmware update timed out.

%2: Device name

Corrective action:

If the HDD is faulty, replace the HDD, and perform a rebuild.

Severity:

Warning

Action:

(R/M/T/S)

28571

SV RAID:%2 Device error (Microcode update failed on disk)

Meaning:

The HDD firmware update failed.

%2: Device name

Corrective action:

If the HDD is faulty, replace the HDD, and perform a rebuild.

Severity:

Warning

Action:

(R/M/T/S)

28572

SV RAID:%2 Device error (Adapter cache pinned for missing or offline logical drive)

Meaning:

For the missing logical drive, the cached data of the SAS array controller card has been saved.

%2: Device name

Corrective action:

If the target logical drive is degraded, replace the HDD, and perform a rebuild.

If the target logical drive is offline, take corrective action according to the multi-dead recovery procedure.

Severity:

Error

Action:

(R/M/T/S)

28573

SV RAID:%2 Device error (Adapter cache pinned for missing or offline logical drives)

Meaning:

For the missing logical drives, the cached data of the SAS array controller card has been saved.

%2: Device name

Corrective action:

If the target logical drive is degraded, replace the HDD, and perform a rebuild.

If the target logical drive is offline, take corrective action according to the multi-dead recovery procedure.

Severity:

Error

Action:

(R/M/T/S)

28574

SV RAID:%2 Device error (Adapter cache discarded by user for missing logical drives)

Meaning:

The cached data of the SAS array controller card was lost.

%2: Device name

Corrective action:

If the target logical drive is degraded, replace the HDD, and perform a rebuild.

If the target logical drive is offline, take corrective action according to the multi-dead recovery procedure.

Severity:

Info

Action:

(R/M/T/S)

28575

SV RAID:%2 Device error (Adapter cache destaged for logical drive)

Meaning:

The cached data of the SAS array controller card was lost.

%2: Device name

Corrective action:

If the target logical drive is degraded, replace the HDD, and perform a rebuild.

If the target logical drive is offline, take corrective action according to the multi-dead recovery procedure.

Severity:

Info

Action:

(R/M/T/S)

28576

SV RAID:%2 Adapter error (Internal hardware error) vendor-id=1000/1734 device-id=%d revision=%r

Meaning:

An error was detected on the SAS array controller card.

%2: Device name

%d: (Example) 0060/10F9 (device-id/sub device-id)

%r: Numerical value (1 to 3 digits)

Corrective action:

Replace the SAS array controller card.

Severity:

Error

Action:

(R/M/T/S)

28577

SV RAID:%2 Adapter error (Internal hardware error during POST) vendor-id=1000/1734 device-id=%d revision=%r

Meaning:

An error was detected on the SAS array controller card.

%2: Device name

%d: (Example) 0060/10F9 (device-id/sub device-id)

%r: Numerical value (1 to 3 digits)

Corrective action:

Replace the SAS array controller card.

Severity:

Error

Action:

(R/M/T/S)

28578

SV RAID:%2 Device error (Bad block table of disk threshold exceeded; table is about to overflow)

Meaning:

The usage threshold of the bad block table has been exceeded.

%2: Device name

Corrective action:

If the HDD is faulty, replace the HDD, and perform a rebuild.

Severity:

Info

Action:

(R/M/T/S)

28579

SV RAID:%2 Device error (Disk failed due to bad block table overflow)

Meaning:

The HDD failed because of a bad block table overflow.

%2: Device name

Corrective action:

If the HDD is faulty, replace the HDD, and perform a rebuild.

Severity:

Error

Action:

(R/M/T/S)

28580

SV RAID:%2 Device error (Disk failure detected during POST)

Meaning:

An HDD failure was detected during POST.

%2: Device name

Corrective action:

If the HDD is faulty, replace the HDD, and perform a rebuild.

Severity:

Error

Action:

(R/M/T/S)

28581

SV RAID:%2 Adapter error (Failure detected during POST) vendor-id=1000/1734 device-id=%d revision=%r

Meaning:

An error was detected during POST.

%2: Device name

%d: (Example) 0060/10F9 (device-id/sub device-id)

%r: Numerical value (1 to 3 digits)

Corrective action:

Replace the SAS array controller card.

Severity:

Error

Action:

(R/M/T/S)

28582

SV RAID:%2 Device error (Multiple failure on disk detected)

Meaning:

More than one HDD failed.

%2: Device name

Corrective action:

If the target logical drive is degraded, replace the HDD, and perform a rebuild.

If the target logical drive is offline, take corrective action according to the multi-dead recovery procedure.

Severity:

Error

Action:

(R/M/T/S)

28583

SV RAID:%2 Device error (Disk failed since it never entered ready state)

Meaning:

The hard disk did not enter the ready state.

%2: Device name

Corrective action:

If the hard disk is faulty, replace it.

Severity:

Error

Action:

(R/M/T/S)

28584

SV RAID:%2 Adapter error (Internal software interface error) vendor-id=1000 device-id=%d revision=%r

Meaning:

An internal software error occurred.

Corrective action:

Replace the array controller.

%2: Device name

%d: (Example) 0079

%r: Numerical value (1 to 3 digits)

Severity:

Warning

Action:

(R/M/T/S)

28585

SV RAID:%2 Adapter error (Device open error) vendor-id=1000 device-id=%d revision=%r

Meaning:

A device open error occurred.

%2: Device name

%d: (Example) 0079

%r: Numerical value (1 to 3 digits)

Corrective action:

Confirm that the version number of the device driver is correct.

Severity:

Warning

Action:

(R/M/T/S)

28586

SV RAID:%2 Adapter error (Ioctl send error) vendor-id=1000 device-id=%d revision=%r

Meaning:

An I/O control error occurred.

%2: Device name

%d: (Example) 0079

%r: Numerical value (1 to 3 digits)

Corrective action:

Confirm that the version number of the device driver is correct.

Severity:

Warning

Action:

(R/M/T/S)

28587

SV RAID:%2 Adapter error (Insufficient application memory) vendor-id=1000 device-id=%d revision=%r

Meaning:

Application memory is insufficient.

%2: Device name

%d: (Example) 0079

%r: Numerical value (1 to 3 digits)

Corrective action:

Replace the array controller.

Severity:

Warning

Action:

(R/M/T/S)

28588

SV RAID:%2 Adapter error (System API error) vendor-id=1000 device-id=%d revision=%r

Meaning:

A system API error occurred.

%2: Device name

%d: (Example) 0079

%r: Numerical value (1 to 3 digits)

Corrective action:

Replace the array controller.

Severity:

Warning

Action:

(R/M/T/S)

28589

SV RAID:%2 Adapter error (Firmware initialization failed) vendor-id=1000 device-id=%d revision=%r

Meaning:

Initialization of the firmware failed.

%2: Device name

%d: (Example) 0079

%r: Numerical value (1 to 3 digits)

Corrective action:

Replace the array controller.

Severity:

Error

Action:

(R/M/T/S)

28590

SV RAID:%2 Adapter error (Firmware recovery failed) vendor-id=1000 device-id=%d revision=%r

Meaning:

Firmware recovery failed.

%2: Device name

%d: (Example) 0079

%r: Numerical value (1 to 3 digits)

Corrective action:

Replace the array controller.

Severity:

Error

Action:

(R/M/T/S)

28591

SV RAID:%2 Adapter error (BBU requires reconditioning; please initiate recalibration) vendor-id=1000 device-id=%d revision=%r

Meaning:

The BBU needs reconditioning.

%2: Device name

%d: (Example) 0079

%r: Numerical value (1 to 3 digits)

Corrective action:

Perform a recalibration.

If the error recurs after the recalibration, replace the BBU.

Severity:

Warning

Action:

(R/M/T/S)

28592

SV RAID: Software error (Task for object cannot be started. The scheduler has disabled the task)

Meaning:

A task could not be started.

Corrective action:

Review the start time of the task. Reconfigure it.

The Patrol Read mode or Auto Learn mode setting may be causing the problem. Recheck the array controller settings.

Severity:

Error

Action:

(R/M/T/S)

28593

SV RAID:%2 Adapter error (SAS topology error) vendor-id=1000 device-id=%d revision=%r

Meaning:

A SAS topology error occurred.

%2: Device name

%d: (Example) 0079

%r: Numerical value (1 to 3 digits)

Corrective action:

Power off the system. Then, confirm that the hard disk, SAS/SATA cable, power supply, and other components are correctly connected. If the error recurs, replace the relevant component on the SAS interface, such as the SAS/SATA cable, expander, and backplane.

Severity:

Error

Action:

(R/M/T/S)

28594

SV RAID:%2 Device error (State change on disk from copyback to failed)

Meaning:

The HDD state changed from copyback to failed.

%2: Device name

Corrective action:

If the hard disk is faulty, replace it.

Severity:

Error

Action:

(R/M/T/S)

28595

SV RAID:%2 Device error (State change on disk from copyback to offline)

Meaning:

The HDD state changed from copyback to offline.

%2: Device name

Corrective action:

If the hard disk is faulty, replace it.

Severity:

Warning

Action:

(R/M/T/S)

28596

SV RAID:%2 Device error (State change on disk from JBOD to failed)

Meaning:

The HDD state changed from JBOD to failed.

%2: Device name

Corrective action:

If the hard disk is faulty, replace it.

Severity:

Error

Action:

(R/M/T/S)

28597

SV RAID:%2 Device error (State change on disk from JBOD to offline)

Meaning:

The HDD state changed from JBOD to offline.

%2: Device name

Corrective action:

If the hard disk is faulty, replace it.

Severity:

Warning

Action:

(R/M/T/S)

28598

SV RAID:%2 Device error (State change by user on disk from copyback to failed)

Meaning:

A user changed the HDD state from copyback to failed.

%2: Device name

Corrective action:

If the hard disk is faulty, replace it.

Severity:

Error

Action:

(R/M/T/S)

28599

SV RAID:%2 Device error (State change by user on disk from copyback to offline)

Meaning:

A user changed the HDD state from copyback to offline.

%2: Device name

Corrective action:

If the hard disk is faulty, replace it.

Severity:

Warning

Action:

(R/M/T/S)

28600

SV RAID:%2 Device error (State change by user on disk from JBOD to failed)

Meaning:

A user changed the HDD state from JBOD to failed.

%2: Device name

Corrective action:

If the hard disk is faulty, replace it.

Severity:

Error

Action:

(R/M/T/S)

28601

SV RAID:%2 Adapter error (Disk security failed to communicate with EKMS) vendor-id=1000 device-id=%d revision=%r

Meaning:

Disk security failed to communicate with the EKMS.

%2: Device name

%d: (Example) 0079

%r: Numerical value (1 to 3 digits)

Corrective action:

This function is not supported. Check the array controller settings.

Severity:

Warning

Action:

(R/M/T/S)

28602

SV RAID:%2 Adapter error (Logical drive secure failed) vendor-id=1000 device-id=%d revision=%r

Meaning:

Logical drive secure failed.

%2: Device name

%d: (Example) 0079

%r: Numerical value (1 to 3 digits)

Corrective action:

This function is not supported. Check the array controller settings.

Severity:

Warning

Action:

(R/M/T/S)

28603

SV RAID:%2 Adapter error (Controller encountered a fatal error and was reset) vendor-id=1000 device-id=%d revision=%r

Meaning:

The controller produced a fatal error and was reset.

%2: Device name

%d: (Example) 0079

%r: Numerical value (1 to 3 digits)

Corrective action:

Replace the array controller.

Severity:

Error

Action:

(R/M/T/S)

28604

SV RAID:%2 Device error (Configuration command could not be committed to disk)

Meaning:

The configuration command was not committed to the disk.

%2: Device name

Corrective action:

If the hard disk is faulty, replace it.

Severity:

Error

Action:

(R/M/T/S)

28605

SV RAID:%2 Device error (Power state change failed on disk)

Meaning:

The disk power state changed from active to stop.

%2: Device name

Corrective action:

If the hard disk is faulty, replace it.

Severity:

Warning

Action:

(R/M/T/S)

28606

SV RAID:%2 Device error (Power state change failed on disk (from stopped to active))

Meaning:

A power state change from stopped to active failed.

%2: Device name

Corrective action:

If the hard disk is faulty, replace it.

Severity:

Warning

Action:

(R/M/T/S)

28607

SV RAID:%2 Device error (Logical drive is not ready)

Meaning:

The logical drive is not in the ready state.

Corrective action:

Check the current state of the logical drive. If it is in the critical state, replace the faulty hard disk, and perform a rebuild.

If it is in the offline state, reconfigure the array. Restore data from a backup.

Severity:

Warning

Action:

(R/M/T/S)

28608

SV RAID:%2 Adapter error (Adapter has been replaced during reboot) vendor-id=1000 device-id=%d revision=%r

Meaning:

The adapter was replaced during a reboot.

%2: Device name

%d: (Example) 0079

%r: Numerical value (1 to 3 digits)

Corrective action:

No action is necessary.

Severity:

Warning

Action:

(R/M/T/S)

28609

SV RAID:%2 Adapter error (Enclosure power supply removed) vendor-id=1000 device-id=%d revision=%r

Meaning:

The enclosure power supply was removed.

%2: Device name

%d: (Example) 0079

%r: Numerical value (1 to 3 digits)

Corrective action:

Check the enclosure status.

Severity:

Warning

Action:

(R/M/T/S)

28610

SV RAID:%2 Adapter error (Enclosure power supply turned off) vendor-id=1000 device-id=%d revision=%r

Meaning:

The enclosure power supply was turned off.

%2: Device name

%d: (Example) 0079

%r: Numerical value (1 to 3 digits)

Corrective action:

Check the enclosure status.

Severity:

Warning

Action:

(R/M/T/S)

28611

SV RAID:%2 Adapter error (Enclosure temperature sensor below warning threshold) vendor-id=1000 device-id=%d revision=%r

Meaning:

The threshold for the temperature sensor in the enclosure is below the warning level.

%2: Device name

%d: (Example) 0079

%r: Numerical value (1 to 3 digits)

Corrective action:

Recheck the server environment temperature. Check the state of the fan. If the error recurs after you rechecked the environment temperature, replace the relevant enclosure component.

Severity:

Warning

Action:

(R/M/T/S)

28612

SV RAID:%2 Adapter error (Enclosure temperature sensor below error threshold) vendor-id=1000 device-id=%d revision=%r

Meaning:

The threshold for the temperature sensor in the enclosure is below the error level.

%2: Device name

%d: (Example) 0079

%r: Numerical value (1 to 3 digits)

Corrective action:

Recheck the server environment temperature. Check the state of the fan. If the error recurs after you rechecked the environment temperature, replace the relevant enclosure component.

Severity:

Error

Action:

(R/M/T/S)

28613

SV RAID:%2 Adapter error (Enclosure temperature sensor above warning threshold) vendor-id=1000 device-id=%d revision=%r

Meaning:

The threshold for the temperature sensor in the enclosure is above the warning level.

%2: Device name

%d: (Example) 0079

%r: Numerical value (1 to 3 digits)

Corrective action:

Recheck the server environment temperature. Check the state of the fan. If the error recurs after you rechecked the environment temperature, replace the relevant enclosure component.

Severity:

Warning

Action:

(R/M/T/S)

28614

SV RAID:%2 Adapter error (Enclosure temperature sensor above error threshold) vendor-id=1000 device-id=%d revision=%r

Meaning:

The threshold for the temperature sensor in the enclosure is above the error level.

%2: Device name

%d: (Example) 0079

%r: Numerical value (1 to 3 digits)

Corrective action:

Recheck the server environment temperature. Check the state of the fan. If the error recurs after you rechecked the environment temperature, replace the relevant enclosure component.

Severity:

Error

Action:

(R/M/T/S)

28615

SV RAID:%2 Device error (Power state change failed on disk (from active to transition))

Meaning:

A power state change from active to transition failed.

%2: Device name

Corrective action:

If the hard disk is faulty, replace it.

Severity:

Warning

Action:

(R/M/T/S)

28616

SV RAID:%2 Device error (Power state change failed on disk (from stopped to transition))

Meaning:

A power state change from stopped to transition failed.

%2: Device name

Corrective action:

If the hard disk is faulty, replace it.

Severity:

Warning

Action:

(R/M/T/S)

28617

SV RAID:%2 Device error (Power state change failed on disk (from transition to active))

Meaning:

A power state change from transition to active failed.

%2: Device name

Corrective action:

If the hard disk is faulty, replace it.

Severity:

Warning

Action:

(R/M/T/S)

28618

SV RAID:%2 Device error (Power state change failed on disk (from transition to stopped))

Meaning:

A power state change from transition to stopped failed.

%2: Device name

Corrective action:

If the hard disk is faulty, replace it.

Severity:

Warning

Action:

(R/M/T/S)

7．2．20．STOP ERROR message [Windows]

This section lists the STOP ERROR messages in Windows.

29000

Software error (windows stop error occurred)

Meaning:

A STOP ERROR occurred in Windows.

Corrective action:

Contact your sales representative or a field engineer.

Severity:

Error

Action:

(R/M/T/S)